



elproVIEWER

**Operation Manual
for both editions**

- Basic
- Professional



ELPRO-BUCHS AG

Warranty conditions and liability disclaimer

Liability

- ELPRO-BUCHS AG does not accept any liability for direct, indirect, special, incidentally occurring, randomly occurring or subsequent damage or losses including lost profit or data resulting from the use of their data loggers, sensors, accessories, software products or information from the documentation.
- ELPRO-BUCHS AG does not bear any responsibility for the installation of the software products.
- ELPRO-BUCHS AG does not provide any guarantees, either explicit or implicit, regarding the usability or suitability of their products for a specific purpose.
- In the interest of our customers we reserve the right to make changes and discontinue the product on the basis of technical advancement. For this reason the functionality, diagrams, descriptions and scope of supply can be modified without prior notification.
- As individual countries or states do not permit the concept of an implicit warranty or a liability disclaimer for incidental or subsequent damage, the restrictions and disclaimers may not apply to all customers. If one of the provisions of this warranty is declared by a competent court to be invalid or not enforceable, this does not affect the validity or enforceability of the remaining provisions.
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- The guarantee obligations of ELPRO-BUCHS AG are limited to reworking, reimbursement of the purchasing price, repair free of charge or the replacement of a faulty product that is returned within the guarantee period to ELPRO-BUCHS AG or an approved reseller of ELPRO-BUCHS AG.
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- The guarantee is only applicable to the original purchaser or end user and customer of an approved reseller of ELPRO-BUCHS AG.
- Resellers approved by ELPRO-BUCHS AG are not authorized to enter into any extended or different guarantee obligations in the name of ELPRO-BUCHS AG.
- ELPRO-BUCHS AG provides a guarantee of 24 months on the following new products:
 - Data logger
 - Holders
 - Accessories except probes and third party products

- This guarantee is valid for material faults or production faults.
- ELPRO-BUCHS AG provides a guarantee of 6 months for the following products and services:
 - All service work and repair
 - Temperature sensor
 - Humidity sensor
- ELPRO-BUCHS AG provides a 90 day guarantee that the medium on which the software product is supplied is free from material and processing faults under normal conditions. All main items of the software product comply with the operating instructions and the information in the help file.
- The guarantee does not apply to consumables, disposable batteries or any other product that ELPRO-BUCHS AG deems to be:
 - misused.
 - modified.
 - replaced by an incorrect product.
 - or damaged by accident or operating or handling conditions that are not compliant with specifications.
- Wear, cable breakage and corrosion are not covered by the guarantee.
- ELPRO-BUCHS AG provides the guarantee period of the manufacturer for third party products.
- ELPRO-BUCHS AG only provides a guarantee and customer support for discontinued products for a limited period.
- Repair work covered by the guarantee is solely carried out at the works (ELPRO-BUCHS AG) or by an agent approved by the works.
- ELPRO-BUCHS AG does not offer any guarantee for the works or SCS calibration of the data loggers and probes. The stated data correspond to the situation during the calibration process.

Software

- The software products of ELPRO-BUCHS AG are subject to internal quality requirements and are validated regularly at the works. In the event of program errors, circumvention of the error is regarded as constituting its elimination.
- Software manuals do not contain either instructions on basic operation of a computer or the basic functions of the Windows® operating system. For information on the operation of the computer or the operating system please refer to the applicable computer manuals.

Data loggers, sensors and accessories

- ELPRO-BUCHS AG applies the highest quality standards during production of the data loggers and their accessories as well as a certified quality management system in compliance with ISO 9001:2008.
- For information on operation of the data loggers and their accessories please refer to the respective product documentation.
- During the installation of data loggers, probes and accessories, compliance with the locally valid installation regulations is mandatory.

- When used in potentially explosive atmospheres, the zone category and the application and safety instructions of ELPRO-BUCHS AG must be complied with.
- In the event of a guarantee claim, customers receive a repair cost estimate from ELPRO-BUCHS AG to obtain the corresponding consent before starting work.
- The customer will bear the transport costs incurred for any repairs carried out by ELPRO-BUCHS AG. The DAP (value added tax) is borne by ELPRO-BUCHS AG.
- ELPRO-BUCHS AG reserves the right to invoice the customer for costs incurred for repair/part replacement.
- After repair work, the product is returned to the purchaser, who will be charged with the return shipping costs (FOB shipping point).

Trademarks

- All stated company and product names and their trademarks are the protected property of the respective owner.

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Used symbols and designations



Information



IMPORTANT INFORMATION AND WARNINGS

⇒ Reference to resuming chapter [xxx / yyy / zzz; e.g. 5.1.1 *Add PDF reports* / Title / PC time] or document



Current cursor position



Mouse keys - red

LIBERO PDF Logger®	Name of the data logger
PDF data logger	Designation in the document
PDF report	Recorded monitoring period is shown as a *.pdf file.
elproVIEWER report	Report of the detailed analysis carried out with elproVIEWER.
liberoCONFIG	Program for configuration of a LIBERO. ⇒ LI6003E
LIBERO SmartStart	Program for simple configuration of LIBEROs in the shipping department. ⇒ LI6003E
liberoMANAGER	The service liberoMANAGER is designed for collecting and automated managing and archiving of PDF reports. ⇒ LM6002E



In the interest of our customers we reserve the right to make any changes resulting from technical advancement. For this reason, diagrams, descriptions and the scope of delivery are subject to change without notice!

This manual is valid as of software release 2014.7.1.0

1 Before you start

1.1 Introduction to elproVIEWER

[Lines](#)
[Tables](#)
[Statistics](#)
[Reports](#)

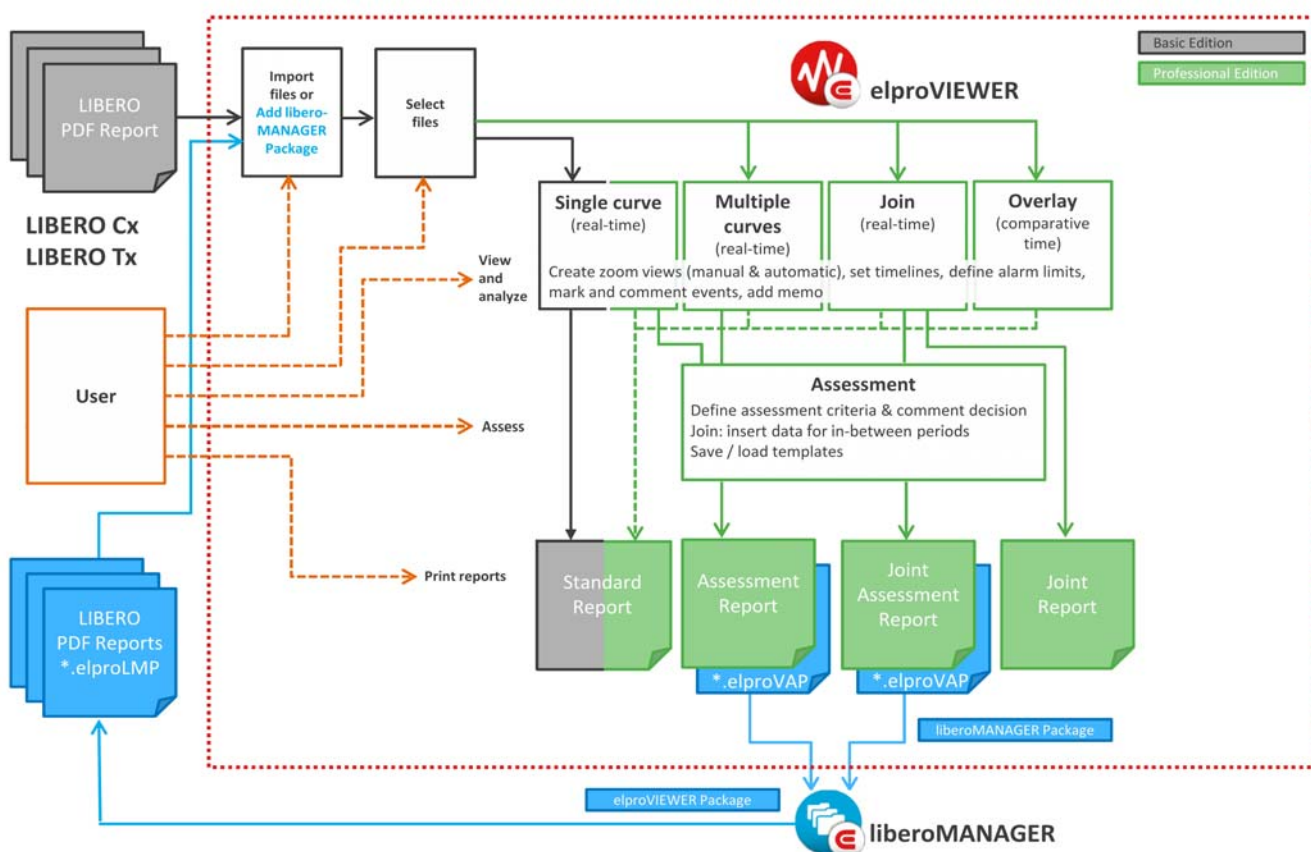
The elproVIEWER software is used both for documentation of individual LIBERO PDF files as well as a large number of PDF files. The software allows fast creation of informative reports that can be used, for example, as the basis for release of a received consignment of temperature-sensitive goods. The embedded data in the PDF report can be statistically evaluated or examined for threshold value violation. The calculation of the MKT (Mean Kinetic Temperature) is also available as an additional analysis method.

Basic functions

The basic functions of the elproVIEWER are as follows:

- Importing PDF reports.
- Checking monitoring periods, threshold values and alarm statuses.
- Creation of various elproVIEWER reports and exporting these as PDF files.

Illustration of elproVIEWER functionalities & reports



1.1.1

Editions of the elproVIEWER

2 Editions

- Basic
 - Free license key
 - Only 1 LIBERO PDF report can be documented.
 - Report type: Standard
- Professional
 - Up to 100 LIBERO PDF reports can be documented in the same elproVIEWER-report.
 - Report types: Standard and assessment

⇒ 2.2 Current edition of elproVIEWER and 9 Error messages

Operation Manual

The structure of this Operation Manual corresponds to the organization of the user interface.

Original PDF file



THE EMBEDDED DATA IN THE PDF FILE ARE NEITHER SAVED NOR CHANGED BY THE "ELPROVIEWER" SOFTWARE.

PDF report Password



IF YOU SHOULD LOSE THE PASSWORD OF THE PASSWORD-PROTECTED LIBERO PDF REPORT, KEEP THE LIBERO AND CONTACT ELPRO-BUCHS AG.

1.1.2 System requirements

For details about the system requirements, refer to
www.elpro.com →SUPPORT CENTER →Software Manuals → elproVIEWER



The "ReadMe" file contains information about the newest functions.

1.1.3 Software licensing

-> Download

The elproVIEWER software can be downloaded from the website at www.elpro.com. The license key required for licensing of the Basic edition is sent free of charge by e-mail.

The Basic edition can be used for a test phase of 30 days. The software must then be fully activated by registration.

E-mail with license key

Andreas Gubler
From: LicenseActivation@elpro.com
Sent: Thursday, 6 November 2014 06:58
To: Andreas Gubler
Regarding: elproVIEWER

Dear customer,
Thank you very much for using elproVIEWER.
Enclosed you are receiving the license key.

Sincerely yours
ELPRO-ROCKS AG

This license information is contained in the e-mail

License key: xxxxx-xxxxx-xxxxx-xxxxxx-xxxxxx-x

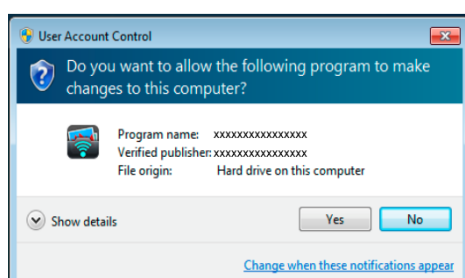
Sincerely yours
Basic: xxxxx-xxxxx-xxxxx-xxxxxx-xxxxxx-x

Software license

Start: Installing the elproVIEWER

After downloading the software start the installation.

Accepting changes
and installing the
elproVIEWER.



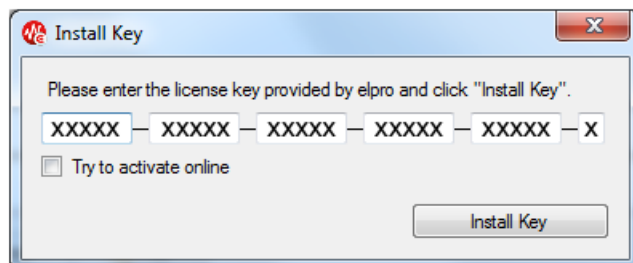
Installation

After completing installation continue with licensing

Licensing

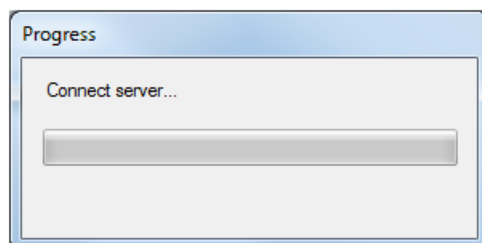
Step 1

Enter the license key and select online activation



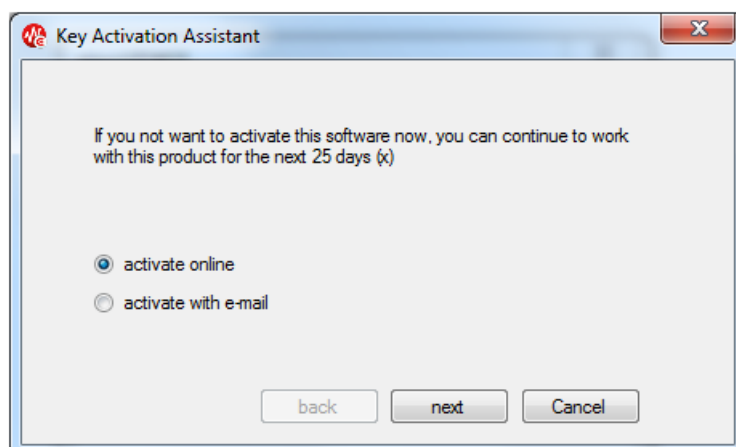
License key

If the box is checked, the elproVIEWER is automatically licensed. The licensing procedure continues with step 2.



Automatic connection

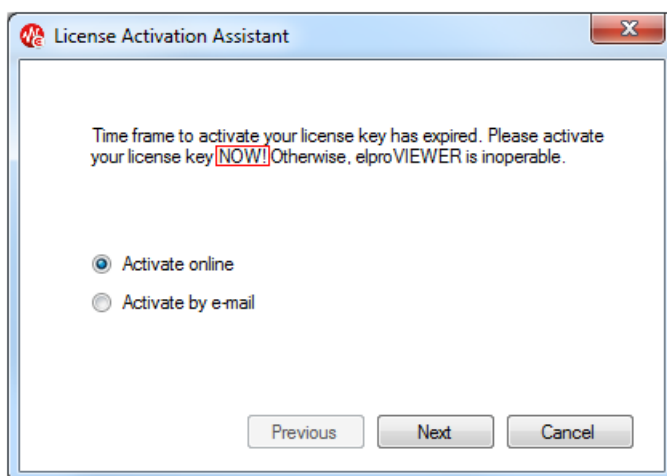
Step 2



Test period: 30 days



This window only appears if "online activation" is not activated when the license key is entered.



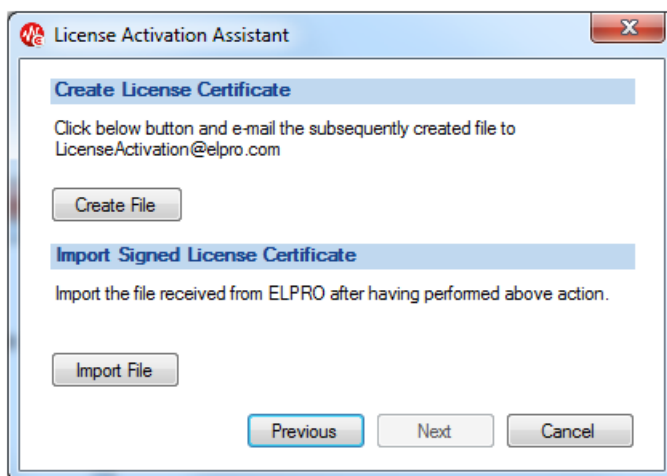
Activate!



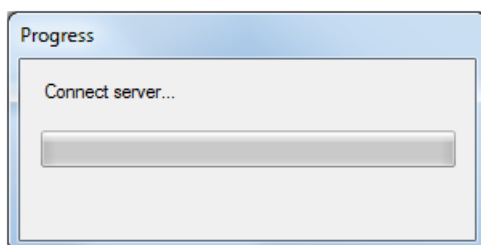
Activation by e-mail
File: elproVIEWER
Basic2014.dlsc

1

Please follow the following instructions for activation by e-mail with the license certificate.

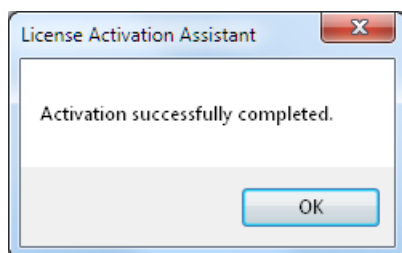


Activation



Automatic connection

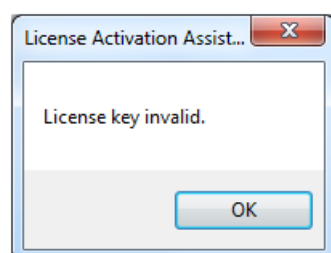
*elproVIEWER
licensed*



Completion

Error messages

Typo



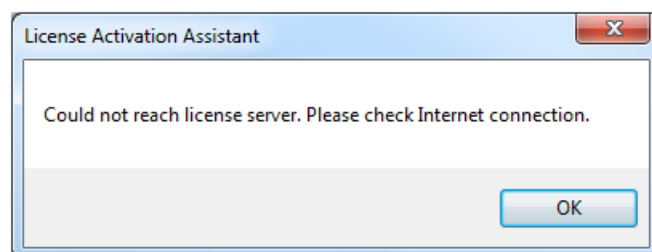
Invalid



AN ERROR WAS MADE WHEN ENTERING THE LICENSE KEY OR THE KEY IS INVALID.

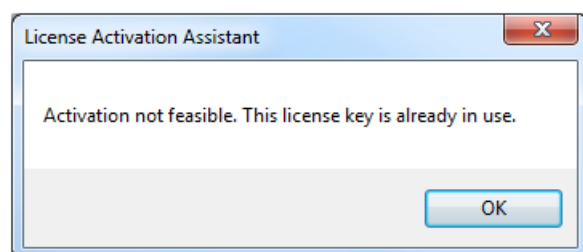
1

*Error when sending or
receiving the licensing
information.*



Error message

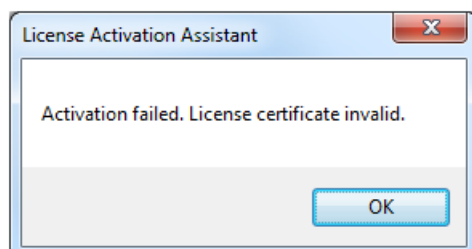
License key



Error message



THE LICENSE KEY IS VALID FOR ONE PC ONLY!



Error message



IN BOTH CASES THE LICENSE KEY IS INCORRECT, PLEASE CONTACT YOUR DEALER OR SEND AN E-MAIL TO SWISSE@ELPRO.COM!

1.2

LIBERO PDF Logger

LIBERO PDF Loggers are used for monitoring products that are sensitive to temperature and moisture. They make the log results available on any PC anywhere in the world as a LIBERO PDF report.

The configuration of the device can be customized with the liberoCONFIG software or with LIBERO SmartStart.

⇒ LI6002Ex, LIBERO Operation Manual

1.2.1

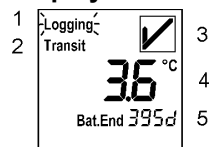
Type: LIBERO Tx

Housing elements

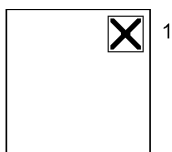


1. Protection cap
2. USB connector
3. Display
4. STOP/Arrived key
5. START/Transit key
6. Rear side
 - Space for customer information
 - Type
 - Logger ID as number and barcode
7. Expiry date: The LIBERO Tx should not be used after this date, irrespective of the battery status.

Display



1. Recording status
2. Transport status: Transit / Arrived
3. Alarm status: OK
4. Last measured value
5. Remaining running time of the data logger, remaining battery life in days



1. Alarm status: Alarm

Configuration - Start - Logging - Assessment

⇒ 8 LIBERO PDF report

MKT calculation

The statistics and MKT calculation of the LIBERO Tx ignores n.c. values (no sensor connected) or s.e. values (sensor short circuit) in the measurement value table. This can be changed in the calculation options of the elproVIEWER.

⇒ 2.1.5 Calculation

1.2.2

Type: LIBERO Cx

Housing elements



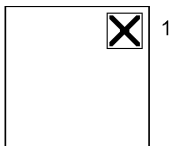
1. Protection cap
2. USB connector
3. Display; a not configured LIBERO Cx shows "ConF".
4. Start/Stop key
5. Exp:XX/YYYY
Expiry date: The LIBERO Cx should not be used after this date, irrespective of the battery status.
Device ID: 7100 0000 0000

Display



1. Run
Flashes if it the LIBERO Cx is active; delay or data recording
2. Battery down
Indicates a low battery voltage. Data access via the USB port is still possible.
3. Profile
The displayed value corresponds to the profile ID
4. Alarm indicator
The alarm indicator may be triggered independently of defined alarm criteria by device error or by using the device out of measurement range
5. Temperature Unit
6. Measurement value or information

1



1. Alarm status: Alarm
⇒ 8.1.3 *Extended alarm functions LIBERO Cx*

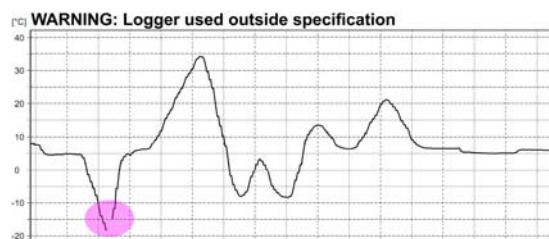
Configuration - Start - Logging - Assessment

⇒ 8 *LIBERO PDF report*

MKT calculation

If there are n.c. values (no sensor connected) or s.e. values (sensor short-circuit) in the measured value table, the LIBERO Cx does not calculate any statistics or any MKT. This can be changed in the calculation options of the elproVIEWER.

⇒ 2.1.5 *Calculation.*



Logging with missing measurement values (gap)

1.2.3

General Safety Information



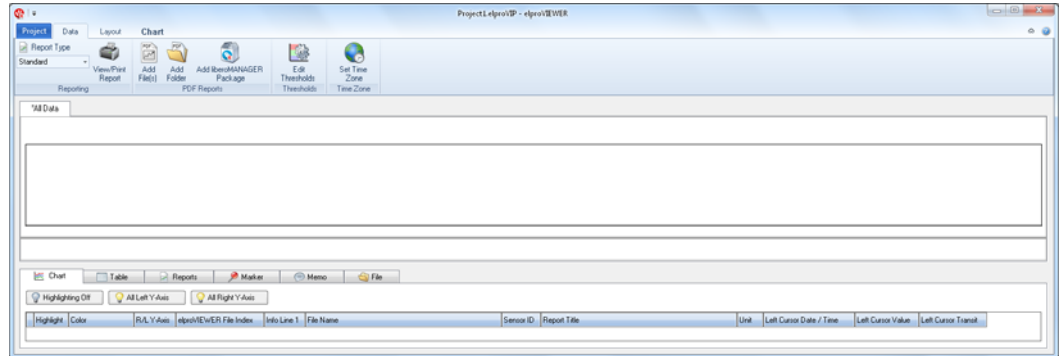
www.elpro.com - Operation Manual or help file of elproVIEWER



Details on the current range of models and their data sheets is available at:
www.elpro.com

2 Start of the elproVIEWER

Start

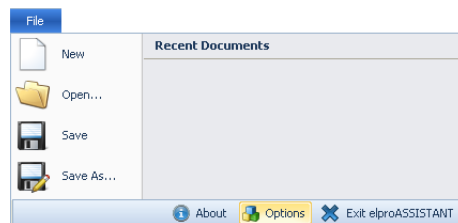


Empty start screen of elproVIEWER

*All data

Only the "All data" view is available.
After starting the software click the "Project" tab.

Project



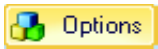
Menu - Project

To create a report the first step is to create a new project or open an existing project. Within this project the LIBERO PDF reports for documentation are added and the actions required for creating a report are carried out. The completed project is then saved from this menu.

A project is made up of the following information:

- LIBERO PDF reports
- Saved views
- Definitions for creating the elproVIEWER report

1. Use



Before using the elproVIEWER for the first time make the following settings:

- Colors for the cursor, zoom crosshairs, lines and alarm zones
- Enter the company logos
- Create the password list for reading password-protected LIBERO PDF reports
- Select the temperature unit, paper size and language
- Calculation options if measurement values / time ranges are missing

⇒ 2.1 Options



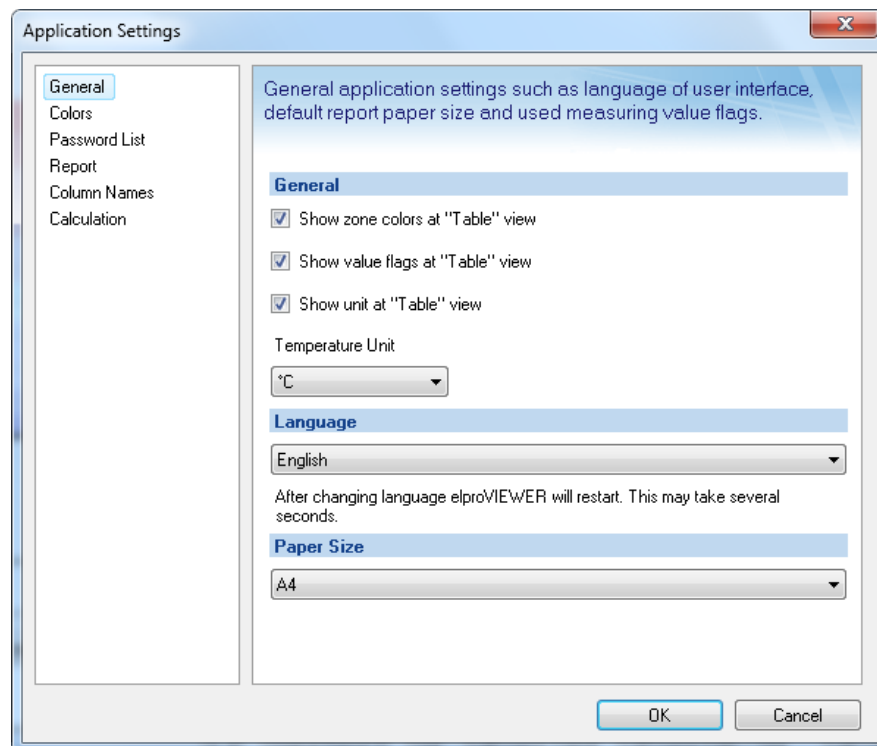
Software edition and extension of the scope of functions

⇒ 2.2 Current edition of elproVIEWER

2.1

Options

Various general program settings are entered in the "Options" window.



Program settings - general

General

Color

Show zone color in the table view

If alarm zones have been defined, they are shown as background colors in the value table.

Show....

- Show measurement value designation in table view
⇒ "TR" is active for alarm condition - 5.2.5 *Transit - Arrived*
- Show unit in table view

Temperature Unit

- Temperature unit: °C or °F

Date / Time	ID 0001 [°C]
30.Mai.2013 09:33:05	7,9

without informations

Date / Time	ID 0001 [°C]
30.Mai.2013 09:33:05	7,9 °C

with unit; °C

Date / Time	ID 0001 [°C]
30.Mai.2013 09:33:05	7,9 TR

with value flag; TR

Display examples

Hiding this information will ease the further processing of exported measurement values.

⇒ 6.4 *Table / WINDOWS* clipboard



In elproVIEWER report both settings: measurement unit and value designation are documented.

Language

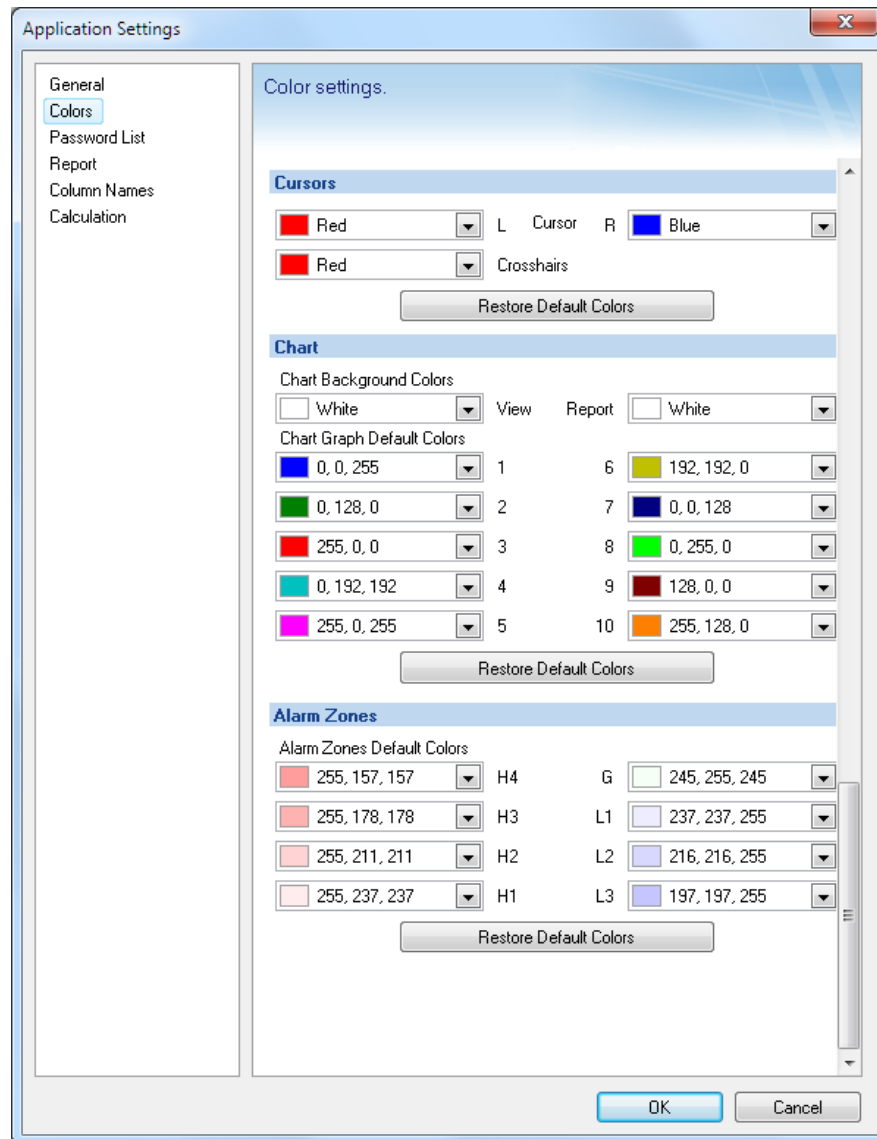
- German
- English
- French

Paper format

Both A4 and letter format can be selected.

2.1.1

Colors



Program settings - colors

Cursor

Definition of the colors of both cursors and the color of the crosshairs for the zoom function.

Chart

- Chart background color
 - View

The background color of the chart is specified with "View".
 - Report

The color of the chart in the elproVIEWER report is defined with "Report".
 -
- Chart standard color

The colors of the first 10 lines are specified in "Chart standard color". To line 11 the color of line 1 is assigned again.

Alarm zones

The "Alarm zones" option is used to define the background colors of the individual alarm zones. These settings permit optimization of the view of the individual alarm zones depending on the screen.

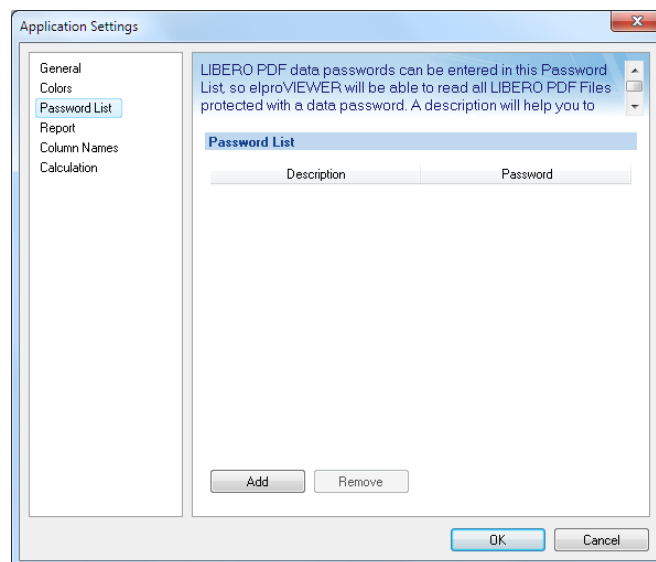
Alarm zones only shown as lines

The color of these lines cannot be changed.

⇒ Example: 5.2.3 *Alarm thresholds*

2.1.2

Password list



Program settings - Password list

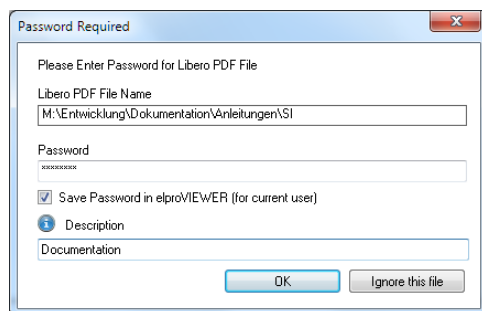
The "Password list" specifies the reading rights for the password-protected LIBERO PDF files. A password contained in the list permits the automatic import of these protected LIBERO PDF reports.

2.1.2.1

Password for file import

This prompt appears when importing password-protected LIBERO PDF files from the Explorer.

WINDOWS Explorer import



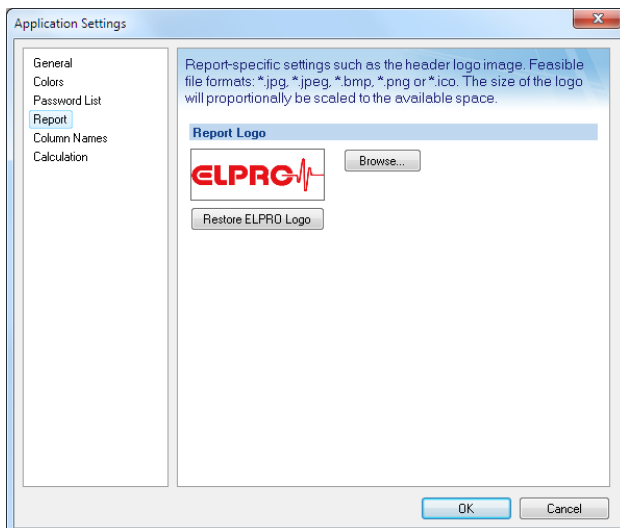
Password prompt

The password is automatically entered into the password list and serves for automatic identification for subsequent imports.

2.1.3

Reports

File formats for logo:
.jpg, .jpeg, .bmp, .png,
.ico

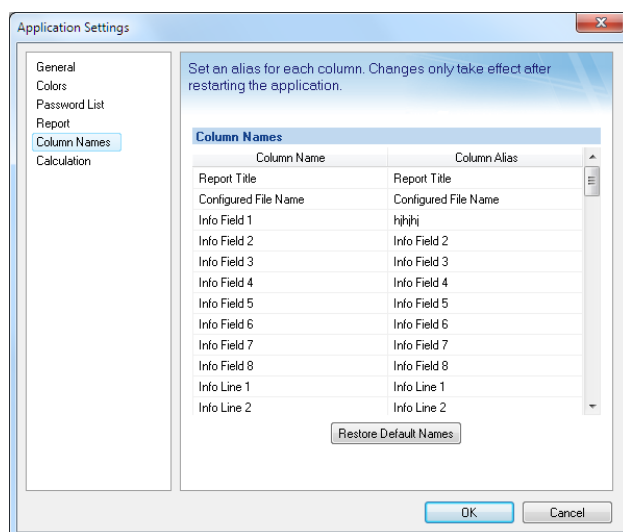


Program settings - reports

If required, you can insert your own company logo on the hardcopy. The size is scaled proportionately to the available space.

2.1.4

Column Names



Program settings - column names

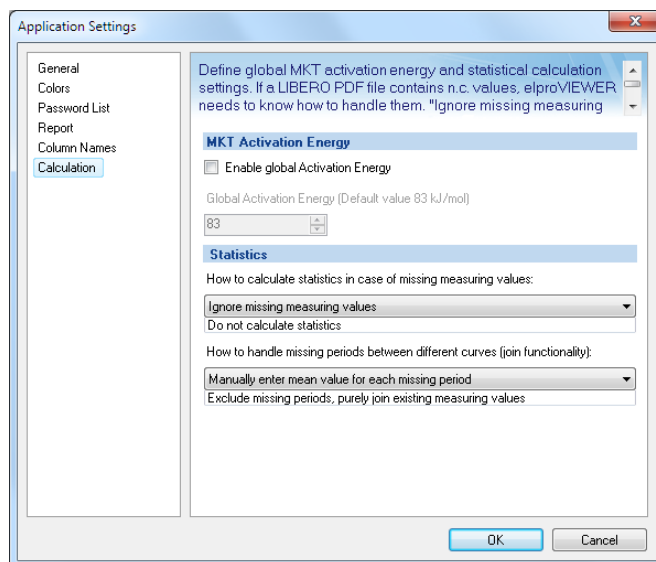
The column names of elproVIEWER can be given a column alias for easier identification. The column alias can, for example, be the column name from the applications liberoCONFIG or liberoMANAGER.

⇒ 6.1.1 *Columns* / Column Names

2

2.1.5

Calculation



Program settings - calculation

2.1.5.1

MKT activation energy



The set standard value can only be changed if "Global activation energy" is selected.

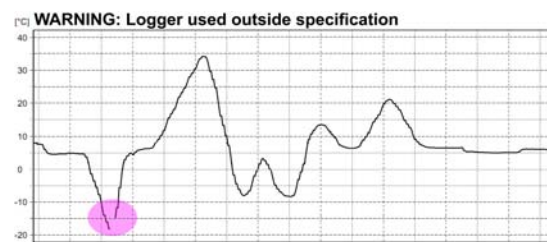
In mode: Assessment - join the calculations are only carried out with one global value for the activation energy. If different values are used in the PDF reports, a global value must be specified.



For rounding reasons the accuracy of the MKT calculation is 0.5 K

2.1.5.2

Statistics



Logging with missing measurement values (gap) **Reasons for missing measurement values**

n.c. Not connected

s.e. Sensor error

- LIBERO with temporarily missing or short-circuited external sensor.
- Applications outside the device specifications.
- Only 1 measurement value n.c. or s.e.
Gaps of only 1 measurement value are automatically closed.

Statistics calculation if measurement values are missing

If there are gaps in the PDF report between the individual measurement values, there are the following options:

- Ignore missing values
The statistics and the MKT are only calculated with the available measurement values. This behavior corresponds to the LIBERO Tx. For the LIBERO Cx this setting can be used to calculate the statistics and the MKT for existing data.
- Do not calculate the statistics
This behavior corresponds to the LIBERO Cx. The statistics and the MKT are not calculated.

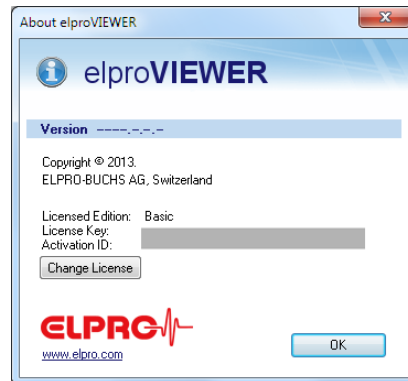
Handling missing periods between two curves (Join)

⇒ 7.3 Join - Missing measurement values

2.2

Current edition of elproVIEWER

Information on the current edition of the elproVIEWER is contained in the info window.



Version

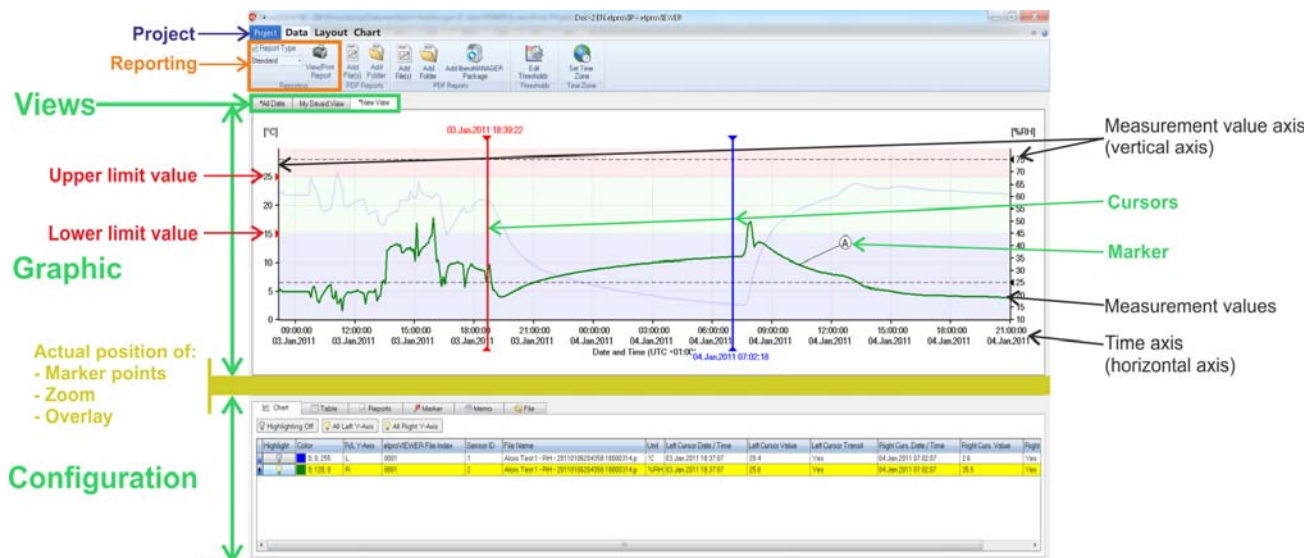
- Copyright information
 - Licensed edition: Basic or Professional
 - License key: 20 characters of the license key
 - Activation ID: Assignment ID of the license server
- If the license key has not yet been activated, the ID is not yet included

With the "Change license" function the scope of functions of the used edition can be extended with a suitable license key. This process requires a new software license. Please contact your dealer or send an e-mail to swiss@elpro.com

⇒ 1.1.1 Editions of the elproVIEWER

⇒ 1.1.3 Software licensing

3 Use of the elproVIEWER



User interface of the elproVIEWER

Views

List of available views.

⇒ 5.3 Menu - Chart

The views are the results of actions that have been carried out. Views can be saved, renamed or deleted.

Graphic

The graphic shows the line curve with the scaled axes, alarm thresholds, positioned cursors and marker points.

⇒ 5.2 Menu - Representation

⇒ 5.3 Menu - Chart

- The lines of dominant data can be highlighted. Data that are not required can be removed from the graphic. ⇒ 6.3 Chart - highlight
- The graphic can be copied to the clipboard by right-clicking for documentation outside the elproVIEWER. ⇒ 6.5 File
- ⇒ 6.6.2 Graphic

Configuration

The "Configuration" section contains several parameters for creating the elproVIEWER report.



Chart

Various settings for line representation.





⇒ 6 Configuration of an elproVIEWER report



Table

Depiction of the measured values in a table.

⇒ 6.4 Table

	Reports	Information on the selected report type.	⇒ 4.1 Report ⇒ 4.2 Assessment ⇒ 6.2 Report-related information
	Marker point	Additional information on a specific point on the line.	⇒ 5.3.3 Marker points
	Memo	Additional information on the displayed LIBERO PDF reports	⇒ 5.3.4 Memos
	File	List with the displayed LIBERO PDF reports	⇒ 6.5 File
	Clipboard	Printing and exporting data	⇒ 6.6.1 Data

3.1 Designations in the graphic: User interface of the elproVIEWER

<i>Project</i>	Create or open a project	⇒ 2 Start of the elproVIEWER
3 <i>Reports</i>	"Reports" is always visible, irrespective of the selected menu. The report type is defined in this field and the configured report is displayed and printed.	⇒ 3.3 Versions of elproVIEWER reports
<i>Data, Representation, Chart</i>	Data, representation and chart are described in Section	⇒ 5 Menus
<i>Representation of the alarm thresholds</i>	The alarm thresholds for the "good" range are shown with arrows on the measured value axes and as lines or as colored areas in the graphic.	⇒ 5.1.3 Edit threshold values ⇒ Example: 5.2.3 Alarm thresholds
<i>Info section for:</i> - Marker points - Zoom - Overlay	This information line shows the measured value information for the respective action.	
<i>Cursors</i>	Up to two cursors can be shown in the graphic.	⇒ 5.2.2 Cursors
<i>Marker points</i>	Marker points are shown to display critical events in the line curve.	⇒ 5.3.3 Marker points

3.3 Versions of elproVIEWER reports

elproVIEWER has several display formats for documentation of LIBERO PDF reports.

Report type	Time axis			
	Real time		Overlay	Join
	Single	Multiple lines	Comparison time	Real time
Standard	✓	✓	✓	✓ Joint report
Assessment	✓	✓		✓ Joint assessment report

Standard

The standard report is used for all simple and fast documentation cases.

⇒ 4.1 Report

Assessment

With the elproVIEWER it is possible to reassess a LIBERO PDF report and create an assessment report. An assessment permits subsequent modification of the alarm thresholds contained in the PDF report. Combined with the "Overlay" function, it is possible to reassess several files in one step.

To return these newly assessed PDF reports to the archive (liberoMANAGER), the elproVIEWER features the "Save for liberoMANAGER" function.

⇒ 4.2 Assessment

Overlay

An overlay allows simple comparison of measurement lines of different LIBERO PDF reports and reports of different times in the chart view.

⇒ 7.2 Overlay

Join

This function combines line curves from several LIBERO PDF reports to a single line curve. This new curve extends over the time range of all individual curves. In a joint assessment the stability budget distributed over several transport periods is joined again and unused stability budget from previous transports to is assigned to a transport in which the alarm conditions were not complied with. Furthermore the stability budget of the storage period for assessment can be included.

⇒ Gaps of only 1 measurement value are automatically closed

7.3.1 Report type: Standard

Type: Joint report

⇒ 7.3.2 Report type: Assessment - Example: Transport - (Warehouse) - Transport

Type: Joint assessment report

Alarm zones

When changing the report type the alarm zones are always shown as lines.

⇒ 5.2.3 Alarm thresholds

4 Applications

Configuring a LIBERO ⇒ 8 LIBERO PDF report

The following chapters describe two report types that were created with the elproVIEWER.

⇒ 4.1 Report

⇒ 4.2 Assessment



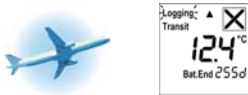
THE DATA AVAILABLE FOR CREATING A REPORT DEPEND ON THE CONFIGURATION OF THE LIBERO.

4.1 Report

4.1.1 Scenario

• Sender

The configured LIBERO PDF Logger is packed with the good that are ready for shipment.



• Transport with threshold value violation

The LIBERO PDF Logger records the transport conditions. During transport a threshold value violation occurs that is registered by the LIBERO PDF Logger.

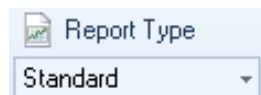
• Situation at destination

The freight recipient documents the transport process on the basis of the LIBERO PDF report. The current LIBERO PDF report shows an alarm. This LIBERO PDF report is examined with the elproVIEWER for precise analysis of the alarm. The result of this work is a standard report created by the elproVIEWER.



4.1.2 Creating a standard report

4.1.2.1 Specifications in the elproVIEWER



*Program
settings*

If necessary modify the following general program settings for the current report:

- Colors
- Password list
- Size of the logo
-



⇒ 2.1 *Options*

4.1.2.2 Workflow

This workflow describes the procedure from a LIBERO to an elproVIEWER standard report in 8 steps.

4

8 steps

1. Create a project
2. Add LIBERO PDF report
3. Create a zoom for the critical area of the line
4. Add marker points
5. Create a view
6. Configure the report
7. View / print report
8. Save the project



Step 1) Create the project

⇒ 2 *Start of the elproVIEWER / Project*



Step 2) Add PDF report

Add individual LIBERO PDF reports, an entire folder with several LIBERO PDF reports or liberoMANAGER-Package to the project.



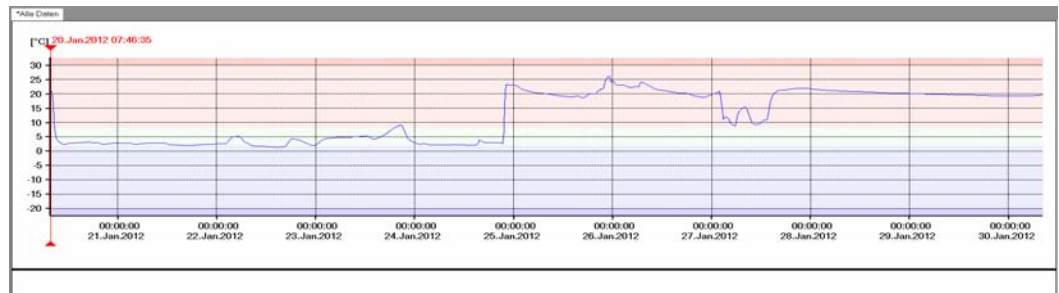
elproVIEWER Basic only supports viewing and analysis of a PDF report. If several PDF reports are to be viewed and analyzed at the same time, an elproVIEWER Professional Version is required.

Assessment reports cannot be added to a project.

⇒ 3.2 From PDF reports to the elproVIEWER report

⇒ 5.1.1 Add PDF reports

⇒ 5.1.2 Add liberoMANAGER packages



Graphic with view: *All data

Monitoring
period



Either each or only the last monitoring period can be highlighted as a thick line for simple representation of the Transit / Arrived periods in the graphic.

⇒ 5.2.5 Transit - Arrived



This chart corresponds to the standard setting of the elproVIEWER. The following graphics do not contain the cursors or the alarm thresholds.

⇒ 5.2.2 Cursors and 5.2.3 Alarm thresholds

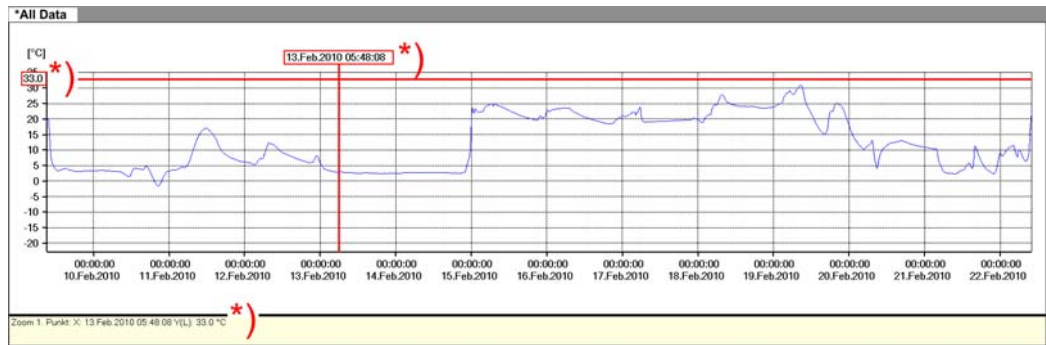


Step 3) Zoom over the critical area of the line

Procedure: Zoom

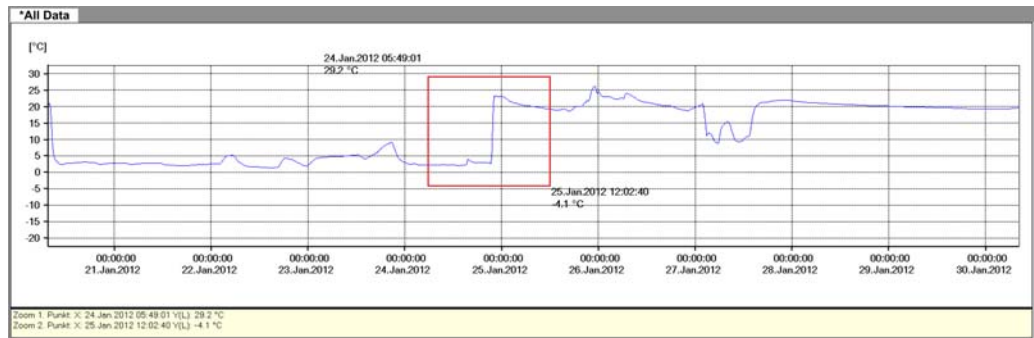
**) Position information on the current cursor position*

- First coordinate determined



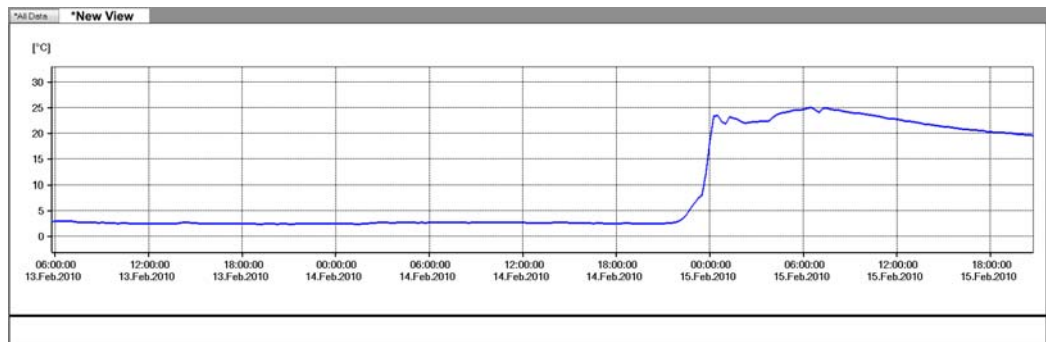
Action executed

- First coordinate set and second coordinate determined



Action executed

- Second coordinate set



*Chart with view : *New view*

The view "New view" is created when the second coordinate is set. This view only shows the zoomed area.

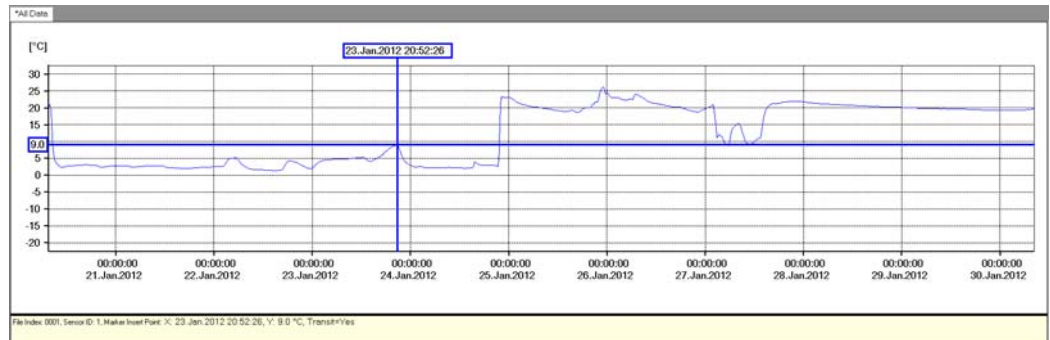


⇒ Further zoom functions 5.3.1 *Chart area*



Step 4) Add marker points

- Select the respective point



Action executed

- Marker point set.

*) Value at the position of the marker point

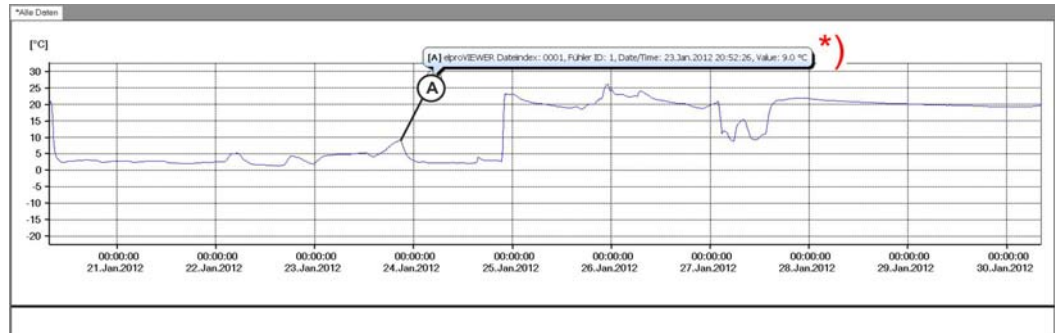


Chart with marker point A

The index is automatically positioned in the chart and is always "A" for the first marker point. The measured value information is displayed as soon as the mouse pointer is moved over the marker point.



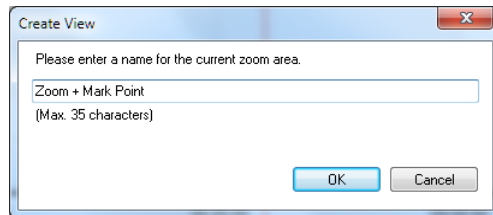
Additional operations are:

Setting a marker point by means of the time and deleting a marker point

⇒ 5.3.3 Marker points

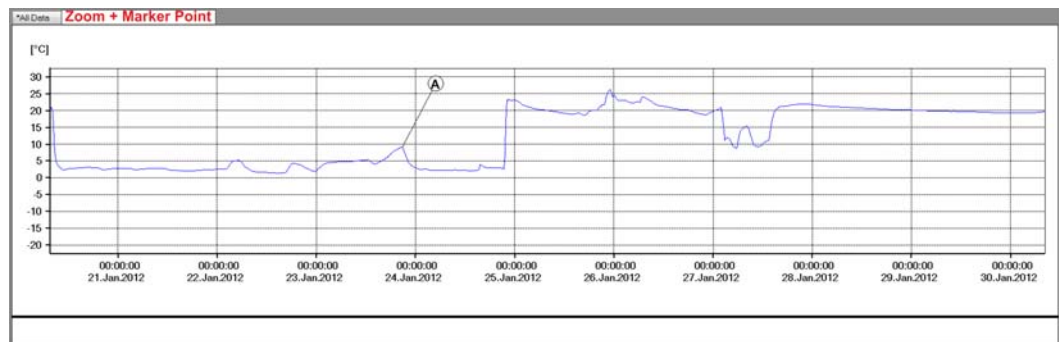


Step 5) Create a view



Action executed

The view "**New view" is named "Zoom + marker point" but only saved when the project is saved.



Action executed

4



Created views can be renamed and deleted

⇒ 5.3.2 Views



Step 6) Configure report

The easiest method for creating a report is to use an existing template. If there is no template available, the report must be manually configured.

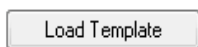
- Template is available
⇒ 6.2.1 Report type: Standard

- 6.2.1 Report type: Standard

Step 7) Create / print report

This function creates an elproVIEWER report that can be printed and archived.

⇒ 4.1.3 Archive elproVIEWER report



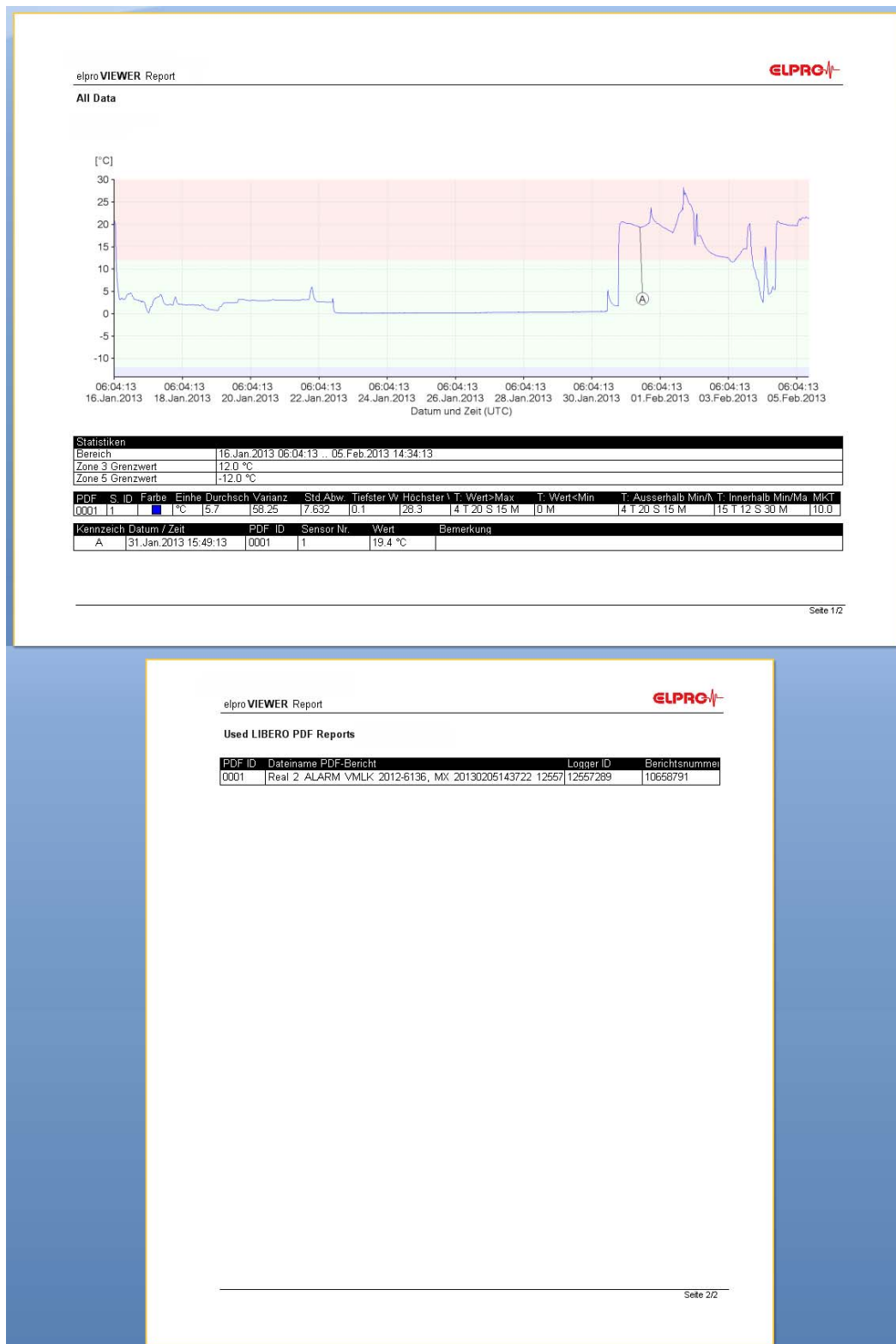
Load Template

New report



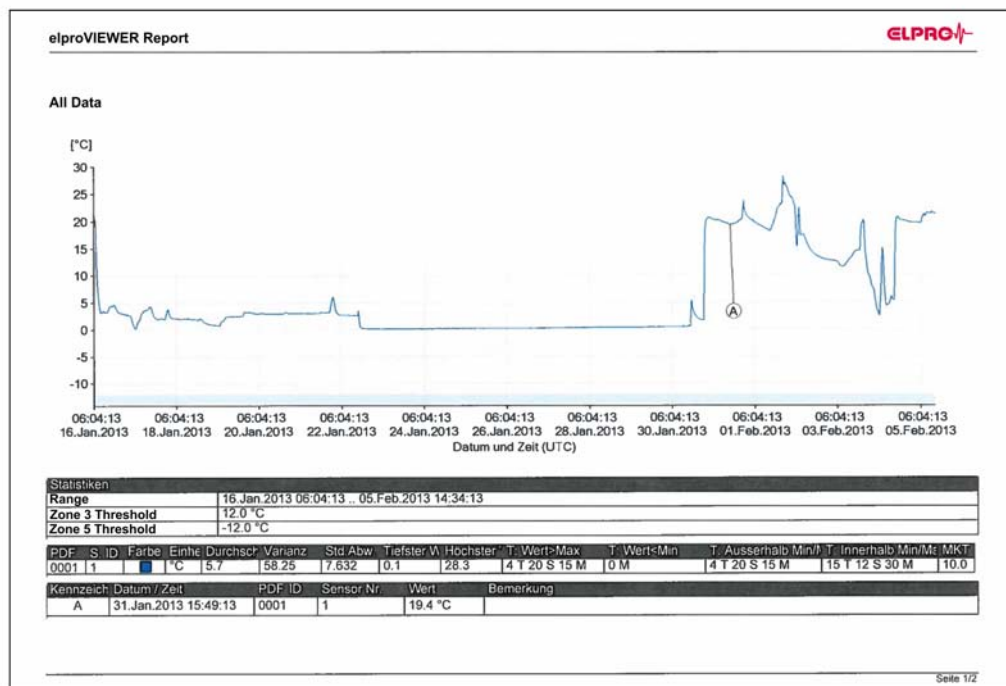
View/Print
Report

Example of a displayed elproVIEWER report



Report - display

Example of a printed report



4

elproVIEWER Report **ELPRO**

Used LIBERO PDF Reports

PDF-ID	Dateiname PDF-Bericht	Logger ID	Berichtsnummer
0001	Real 2 ALARM VMLK 2012-6136, MX 20130205143722 12557	12557289	10658791

Seite 2/2

Report - print



Step 8) Save the project

⇒ 2 Start of the elproVIEWER / Projects / Save

4.1.2.3

Extended Settings



⇒ 5.1.3 Edit threshold values

⇒ 5.1.4 Time zone

4.1.3

Archive elproVIEWER report

Icons: "Archive report"



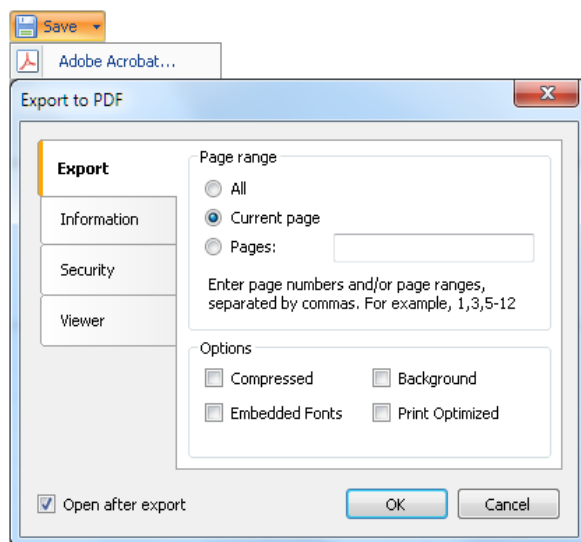
Possible elproVIEWER report functions:

- Print
- Save
- Browse
- [Close]

4.1.3.1

Save elproVIEWER report

"Save" opens Adobe Acrobat® and permits the export of the elproVIEWER report as a PDF file.



Save

4.2

Assessment



During assessment, the existing LIBERO PDF report is created again but with a different monitoring period of different alarm thresholds. To prepare for assessment, a new project is created containing the LIBERO PDF report requiring assessment.

⇒ 2 Start of the elproVIEWER / Project

The following sections: 4.2.1.1 *Scenario - Time* to 4.2.2.2 *Settings - threshold value* each describe an example of assessment with a different monitoring period and different alarm thresholds.

4.2.1

Assessment - time

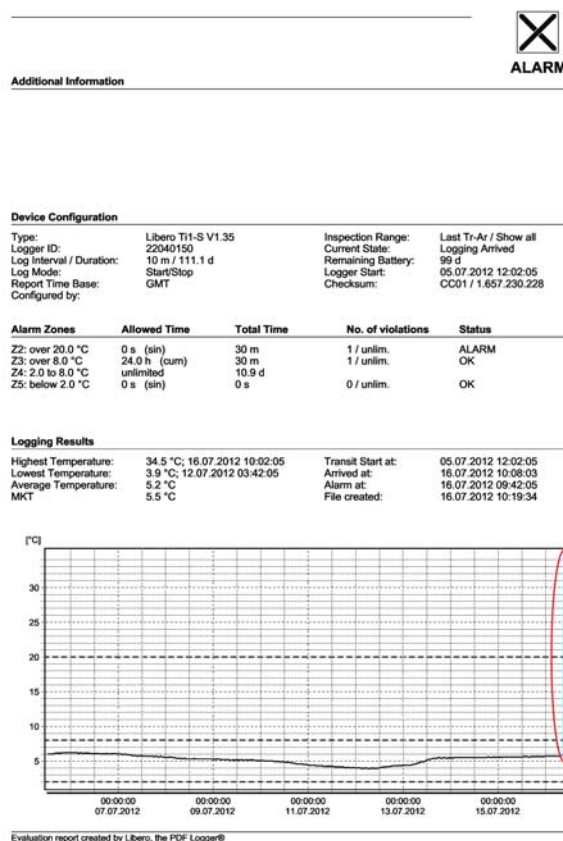
4.2.1.1

Scenario - Time

In the following example, the data logger had been stopped too late, i.e. at a point at which it was no longer at refrigerated conditions (2-8°C). The alarm-triggering time range is deleted in this assessment.

The blue section of the line triggered the alarm

4

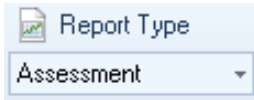


Original PDF report at the freight recipient with alarm

4.2.1.2

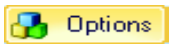
Settings - Time

Program settings



If necessary modify the following general program settings for the current report:

- Colors
- Password list
- Size of the logo
-



⇒ 2.1 *Options*

4.2.1.3

Workflow - Time

The simplest method for report configuration is to use an existing template. If there is no template available, the report must be manually configured.

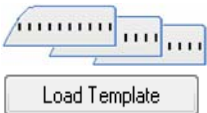
With template

Step 1) Preparation

A project is created in preparation for the assessment and the respective LIBERO PDF reports are added.

⇒ 2 *Start of the elproVIEWER / Project*

Step 2) Report



1. Open the existing template

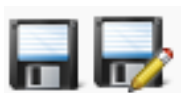


2. Create report

- View / Print Report

This function creates an elproVIEWER assessment in the form of a PDF report that can be printed and archived.

⇒ 4.2.1.4 *Result of the assessment - time*



- Save the project

⇒ 4.2.3 *Archive elproVIEWER assessment in the liberoMANAGER*

New report

This procedure describes in 3 steps the procedure from a LIBERO PDF report to an elproVIEWER assessment with a different time range.

1. Preparation
2. Specify new time range with a zoom

3. Complete assessment report

The assessment report can be given a title (120 characters) and an approval decision (4 lines of 80 characters). Depending on the approval process, a two-line signature block can be printed on the report.

4. Create report

⇒ 6.2.2 *Report type: Assessment*

Step 1) Preparation

A project is created in preparation for the assessment and the respective LIBERO PDF reports are added.

⇒ 2 *Start of the elproVIEWER / Project*

Step 2) Zoom



The transport process that is critical for assessment is highlighted in the chart by zooming.

⇒ 5.3.1.1 *Zoom*

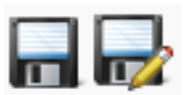
Step 3) Report



- View / Print Report

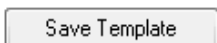
This function creates an elproVIEWER assessment in the form of a LIBERO PDF report that can be printed and archived.

⇒ 4.2.1.4 *Result of the assessment - time*



- Save the project

⇒ 4.2.3 *Archive elproVIEWER assessment in the liberoMANAGER*

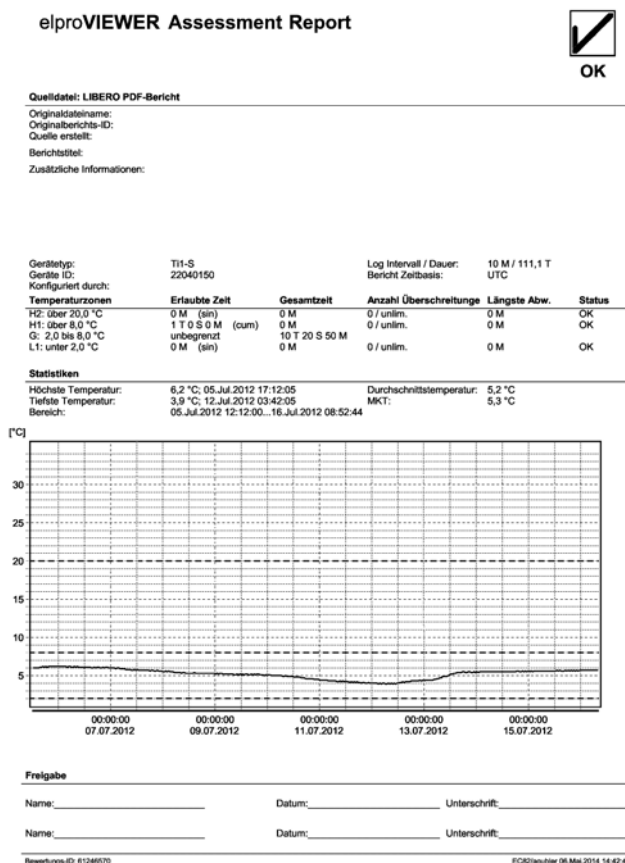


- Save template for new reports

4.2.1.4

Result of the assessment - time

The threshold values violation at the end of transport is outside the zoom



LIBERO PDF report with the modified transport time

Result

The original LIBERO PDF report can now be used in a modified version as an elproVIEWER assessment PDF report for transport documentation.



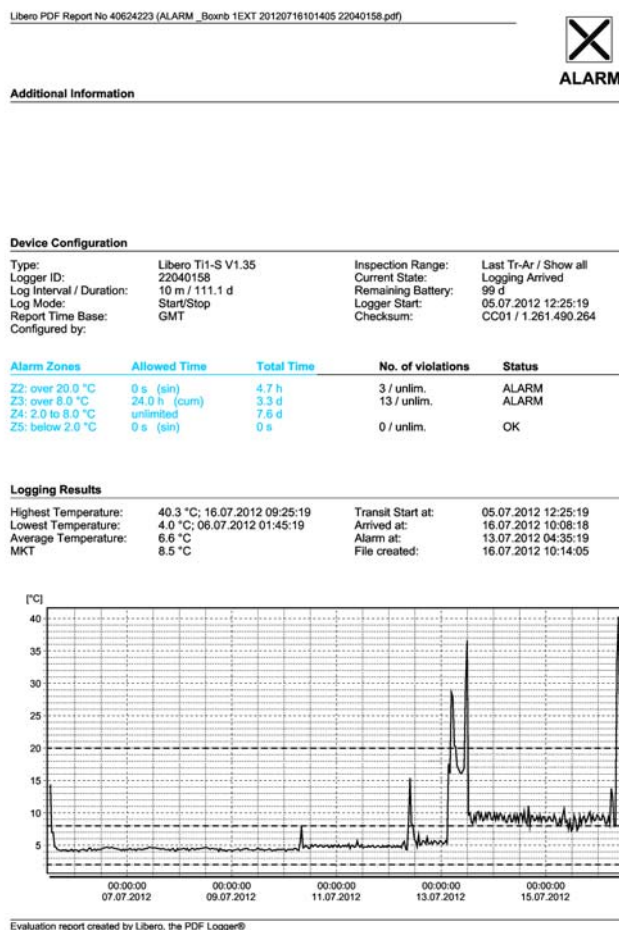
THE ELPROVIEWER ASSESSMENT REPORT DOES NOT CONTAIN ANY EMBEDDED DATA!

4.2.2 Assessment - threshold value

4.2.2.1 Scenario - Threshold values

A transport process with a threshold values violation is shown as an example. In this assessment the used alarm thresholds are increased to the maximum permissible threshold values.

The blue text refers to the representation of the alarm

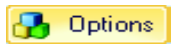
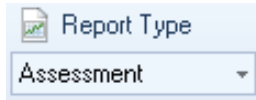


Original LIBERO PDF report at the freight recipient with alarm

4.2.2.2

Settings - threshold value

Program settings



If necessary modify the following general program settings for the current report:

- Colors
- Password list
- Size of the logo
-

⇒ 2.1 Options



In an assessment the alarm zones are always shown as lines.

4.2.2.3

Workflow - Threshold value

The simplest method for report configuration is to use an existing template. If there is no template available, the report must be manually configured.

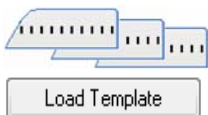
With template

Step 1) Preparation

A project is created in preparation for the assessment and the respective LIBERO PDF reports are added.

⇒ 2 Start of the elproVIEWER / Project

Step 2) Report



1. Open the existing template



2. Create report

- View / Print Report

This function creates an elproVIEWER assessment in the form of a PDF report that can be printed and archived.

⇒ 4.2.1.4 Result of the assessment - time



New report

- Save the project

⇒ 4.2.3 Archive elproVIEWER assessment in the liberoMANAGER

This workflow describes the procedure from a LIBERO PDF report to an elproVIEWER assessment with new threshold values in four steps.

1. Preparation
2. Specify new threshold values
3. Marker points and view name
4. Create report

⇒ 6.2.2 Report type: Assessment

Step 1) Preparation

A project is created in preparation for the assessment and the respective LIBERO PDF reports are added. The transport process that is critical for assessment is highlighted by highlighting the Transit / Arrived period and zooms in the chart.

⇒ 2 Start of the elproVIEWER / Project

⇒ 5.2.5 Transit - Arrived

Step 2) Specify new threshold values

4



Information on the assignment of new threshold values

⇒ 6.2.2.2 Threshold values

Step 3) Marker points and view name



For further documentation marker points can be included and named in the current chart.

Step 4) Report



- View / print report

This function creates an elproVIEWER assessment in the form of a LIBERO PDF report that can be archived and printed.

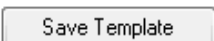
⇒ 4.2.2.4 Result of the assessment - Threshold value



- Save the project

⇒ 4.2.3 Archive elproVIEWER assessment in the liberoMANAGER

- Save template for new reports



4.2.2.4

Result of the assessment - Threshold value

The blue text refers to the modified alarm thresholds



4

LIBERO PDF report with the modified thresholds in accordance with the new specifications

Result

The original LIBERO PDF report can now be used in a modified version as an elproVIEWER PDF assessment report for transport documentation. The new alarm thresholds for this transport are met in the assessment report and the consignment can be released to the freight recipient.



THE ELPROVIEWER ASSESSMENT REPORT DOES NOT CONTAIN ANY EMBEDDED DATA!

4.2.3 Archive elproVIEWER assessment in the liberoMANAGER

Icons: "Archive report"



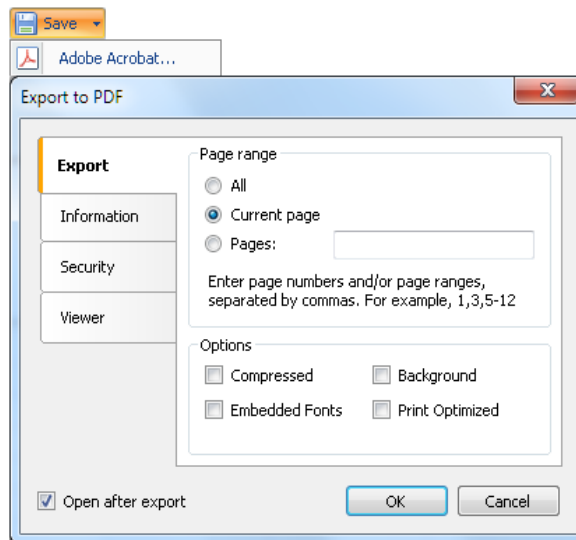
Possible elproVIEWER assessment functions:

- Print
- Save
- Export
- Browse
- Close

4.2.3.1 elproVIEWER Save assessment



"Save" opens Adobe Acrobat® and permits the export of the elproVIEWER report as a PDF file.



Save

4.2.3.2 elproVIEWER Export assessment



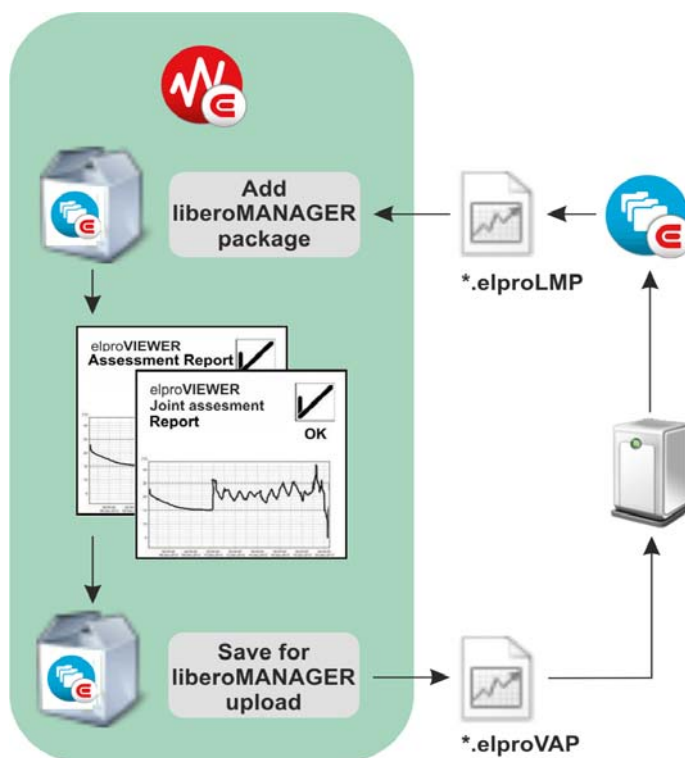
The elproVIEWER assessment is saved as an *.elproVAP file in a folder for which the liberoMANAGER has access rights. The elproVAP file can be processed further with the liberoMANAGER import function.

**.elproVAP*

elproVIEWER Assessment Package

The *.vap file contains the newly assessed PDF report and a csv file. In the *.csv it is defined to which original PDF report the newly assessed report should be appended. The assessment report and the corresponding *.csv file have the same file name and only the file type is different. The file name corresponds to the assessment report ID.

- The *.csv file contains:
- Assessment report ID
 - Original Device ID (for the joint assessment report the last PDF report)
 - Original PDF report number (for the joint assessment report the last PDF report)
 - Comment (title of the elproVIEWER assessment report)
 - Checksum of the assessment report and the csv file.



liberoMANAGER upload

5 Menus

5.1 Menu - Data



Menu bar - data

Project

One or several LIBERO PDF reports for documentation are added to a new project. The LIBERO PDF reports can originate from various directories or can be added as a complete folder to the project.



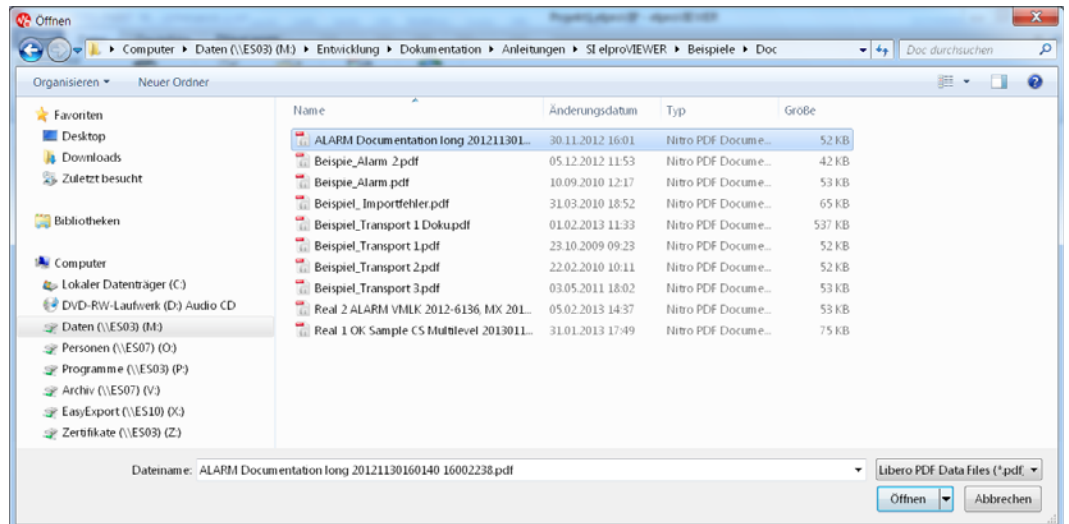
In the professional edition of the elproVIEWER software multiple LIBERO PDF reports can be processed simultaneously to an elproVIEWER report.

⇒ 1.1.1 Editions of the elproVIEWER

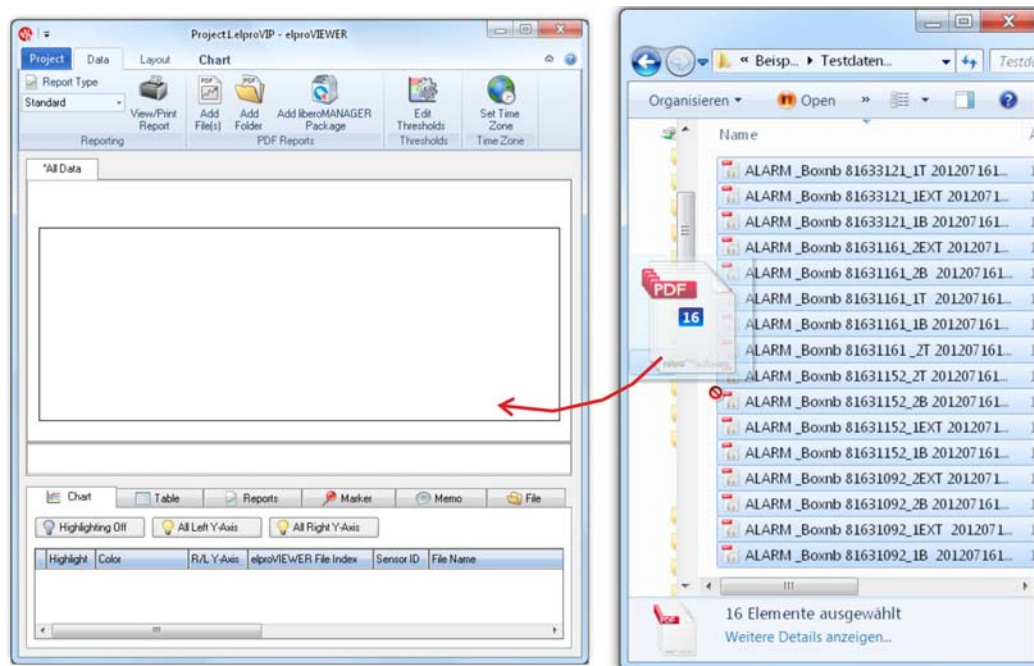
5

5.1.1

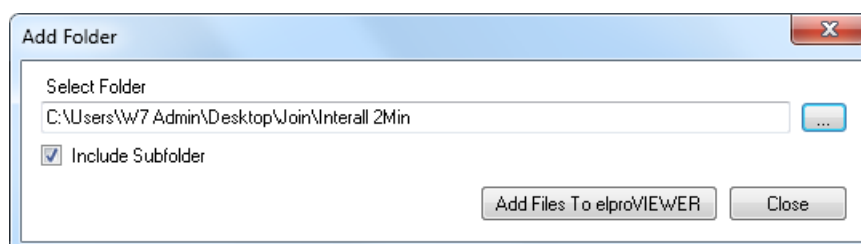
Add PDF reports



Add file



Add several files at the same time (drag and drop)



Add folder and subfolder



WITH ELPROVIEWER PROFESSIONAL AN ELPROVIEWER REPORT MAY DOCUMENT UP TO 100 LIBERO PDF REPORTS!

5.1.2

Add liberoMANAGER packages



Possible file formats for import:

- liberoMANAGER packages, *.elproLMP files
 - *.zip files
- ⇒ Operation manual liberoMANAGER LM6002Ex

5.1.3

Edit threshold values



Alarm thresholds for the temperature and relative air humidity can be:

- Activated for statistics calculation.
- Manually specified or taken from the first PDF file; file index = 1.
- Used with simple alarm thresholds or multiple alarm zones.
 - Example on left: Single threshold value
 - Example on right: Multiple alarm zones

Threshold Range

Threshold Values Input

☒ Manual ☐ Of File Index 0001

Temperature / Relative Humidity

☒ Enable

Alarm Mode

Single Alarm Thresholds - Temperature and Humidity

Single Alarm Thresholds - Temperature and Humidity

Upper Threshold

0.0 °C 0.0 %RH

Lower Threshold

0.0 °C 0.0 %RH

Alarm Delay Time

0.0 Minutes

OK Cancel

Threshold Range

Threshold Values Input

☒ Manual ☐ Of File Index 0001

Temperature / Relative Humidity

☒ Enable

Alarm Mode

Multiple Alarm Zones

Multiple Alarm Zones

Used	Temperature	Alarm after	Event	Violations
H4:	<input type="text" value="0.0"/>	0 Minutes	Single	unlim.
H3:	<input type="text" value="0.0"/>	0 Minutes	Single	unlim.
H2:	<input type="text" value="0.0"/>	0 Minutes	Single	unlim.
H1:	<input type="text" value="0.0"/>	0 Minutes	Single	unlim.
G:	No Alarm			
L1:	<input type="text" value="0.0"/>	0 Minutes	Single	unlim.
L2:	<input type="text" value="0.0"/>	0 Minutes	Single	unlim.
L3:	<input type="text" value="0.0"/>	0 Minutes	Single	unlim.

☐ Zone 3 + 5 coupled

OK Cancel

Manual specification of threshold values (LIBERO Cx)

- Entry of threshold values
In assessment reports with several PDF reports, the limit values can be used by any PDF report.
Only if "manual " is selected, the threshold values can be redefined.



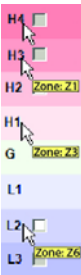
- Temperature / Relative humidity
"Activate" must be selected to select the alarm modes.
- Alarm mode
There are various different alarm modes.

Threshold values

Information on the definition of the threshold values in the LIBERO PDF report

⇒ 8.1 Alarm & threshold values

LIBERO Tx



For the LIBERO Tx a note appears for the zones H3 to L2 for easier identification of the alarm zone.

H4	----	G	Z4	L1	Z5
H3	Z1			L2	Z6
H2	Z2			L3	----
H1	Z3				

Representation

- Alarm zones can be displayed in the measured value chart in different ways.
⇒ 5.2.3 Alarm thresholds
- The colors in the alarm zones correspond to the definitions in:
⇒ 2.1.1 Colors


5.1.4

Time zone

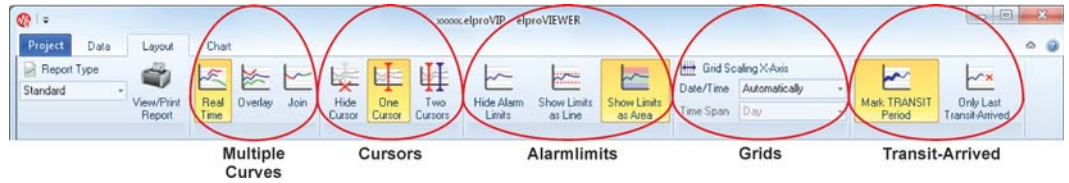


Defines the time zone used in the report. Therefore, the line representation can be shown at the same time for comparison of LIBERO PDF reports that run over different time zones.

Set time zone


 This setting is used for all following assessments


5.2 Menu - Representation





Menu bar

5.2.1 Multiple lines

 **Line colors**
⇒ 6.3.1 Color

 **Real time**
The lines are shown in accordance with the recording time.

 **Overlay**
An overlay allows simple comparison of measurement lines of different LIBERO PDF reports and reports of different times in the chart view.
⇒ 7.2 Overlay

 **Join**
This function combines line curves from several LIBERO PDF reports to a single line curve. This new curve extends over the time range of all individual curves.
⇒ 7.3 Join

5.2.2

Cursors



Cursor colors

⇒ 2.1.1 Colors



Setting a color

- The cursor is positioned by left-clicking the mouse and dragging from the left or right measured value axis.
- The current measured value and time as well as the transport status are displayed.

⇒ 6.1 General contents / Column names from the 3rd column / Left cursor / Right cursor

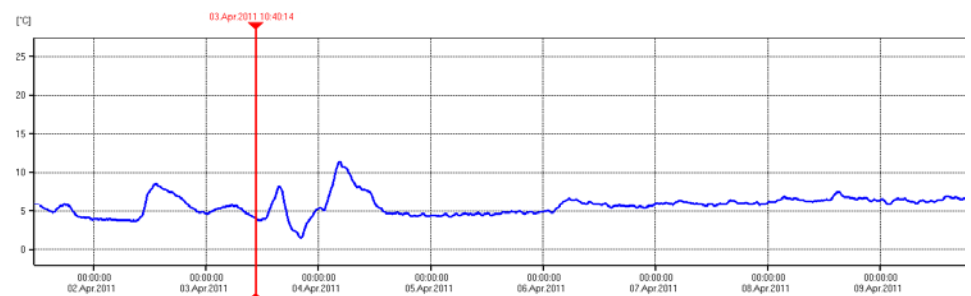


Hide cursor



Show cursor

This cursor always refers to the left-hand measured value axis



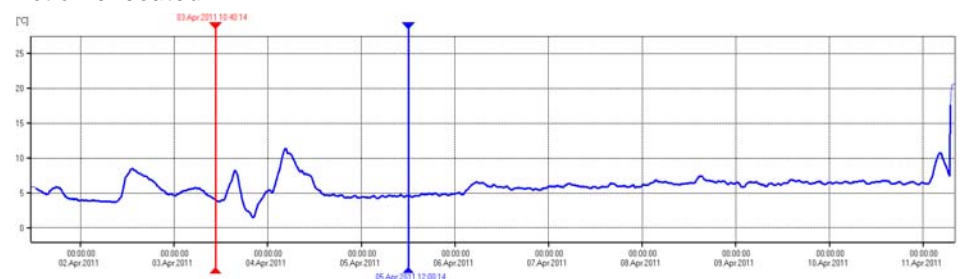
Action executed



Show two cursors

The second cursor always refers to the right-hand measured value axis. Both cursors cannot be crossed.

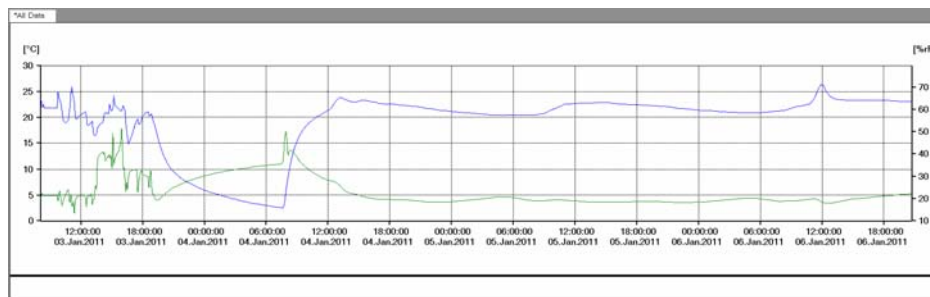
Action executed



5.2.3

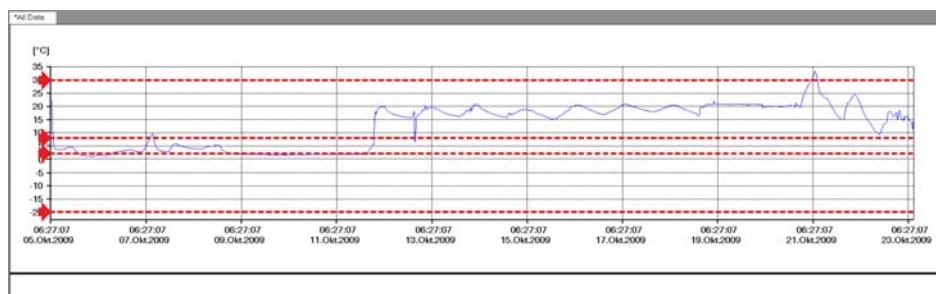
Alarm thresholds

Hide alarm thresholds



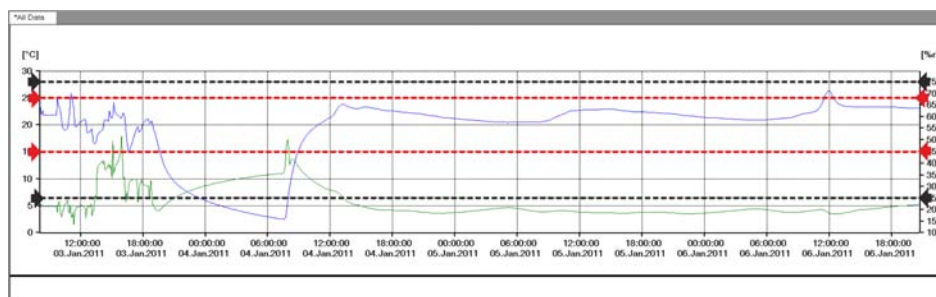
Action executed

Show thresholds as lines



Action executed

Example: 1-channel LIBERO; Ti1



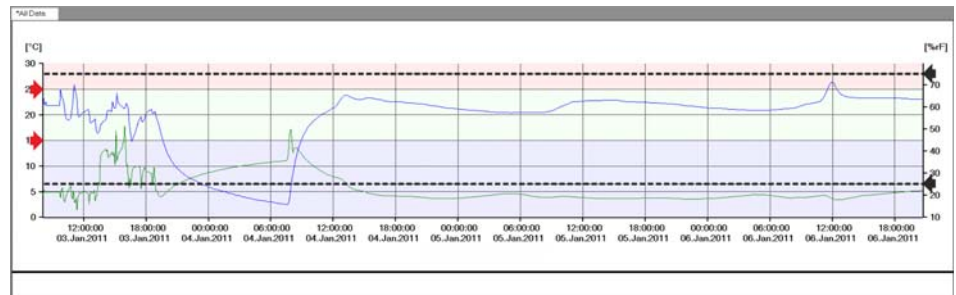
Example: 2-channel LIBERO; THi1

Red: Channel 1

Black: Channel 2



Show thresholds as areas



Example: 2-channel LIBERO; THi1

Area: Channel 1 / green: no alarm

Black line: Channel 2

⇒ Definition of the colors 2.1.1 Colors

5.2.4

Grid



Scaling X axis

- This function determines the displayed resolution of the time axis.
- Scaling can be carried out either automatically or manually. In automatic mode the display is adapted to the window size.

Date / Time

Is only active when the measured values are shown in the "Real time" view.

Time span

Is only active when the measured values are shown in the "Overlay" or "Join" view.

5.2.5

Transit - Arrived

5.2.5.1

LIBERO Tx

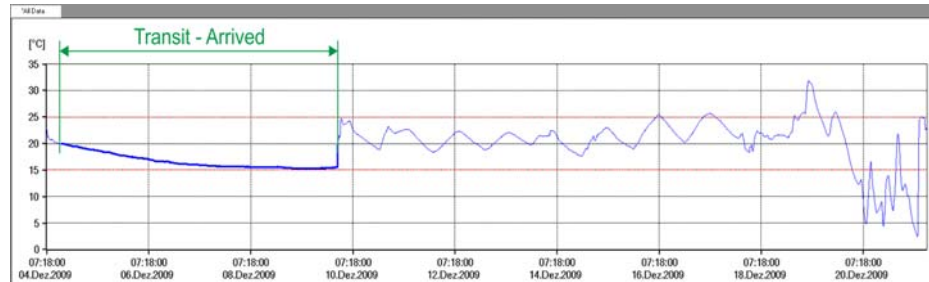


Mark transit period

All transport cycles that are between the start of transport and the consignment arrival are shown with a strong line.



Only last Transit / Arrived period



The last transport is shown as a thick line.



The monitoring periods are recognized only if they have been marked by the Transit and Arrived button of the LIBERO Tx.

⇒ LI6002Ex Libero operation manual.

5

5.2.5.2

LIBERO Cx



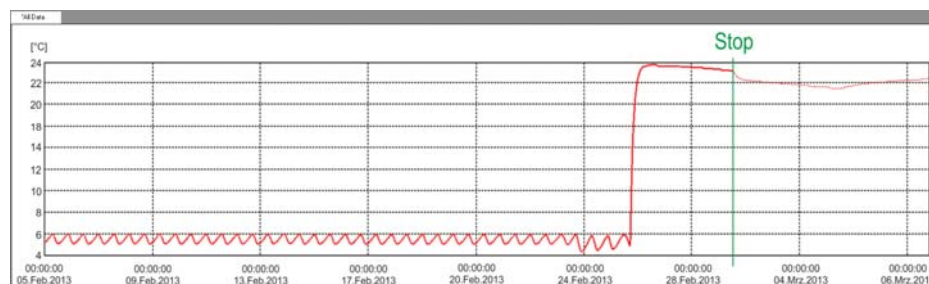
Mark transit period

The TRANSIT period is shown as a thick line in the line curve from the start of logging until the start/stop key is pressed.



Only last Transit / Arrived period

The line curve between pressing of the start/stop key and the end of logging can be shown or hidden.



The last period is shown as a thick line.

5.3 Menu - Chart

5.3.1 Chart area



Menu bar

5.3.1.1

Zoom



The Zoom function can only be used on an active Y axis (only the left Y axis, only the right Y axis). Red crosshairs mark the beginning of the required zoom range and are fixed by clicking the mouse. Then drag the red rectangle until the required section is marked. Click again to set the right bottom corner of your selection. The selected rectangle is now zoomed to full screen size. To zoom at the page borders, it is best to start outside of the data area and then select the required window size.



All

Both Y axes or only the left or right Y axis can be shown in the view.



Only left Y axis

Only the left Y axis is shown.



Only right Y axis

Only the right Y axis is shown.



Position information of the zoom crosshairs

⇒ 3 Use of the elproVIEWER / Info section



Previous zoom

The last zoom action is undone.



All data

The current zoom window corresponds to the representation in "*All data", but only for the line curves shown in the current view.

⇒ 6.1 *General contents* / File



Move chart

- Movement of the line in the chart as required. Moving is only possible when holding the mouse button.



- If available, the line curve can be moved by pressing the center mouse key (red).

⇒ 7.2 *Overlay* / Point 4

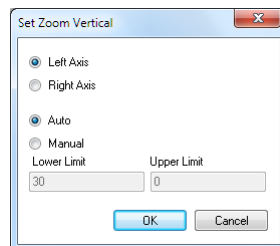
5.3.1.2

Manual zoom



Vertical axis

Assignment of the displayed area of the Y axis. Scaling is carried out separately for the left and right axes. It can be carried out automatically or by entering the upper and lower threshold values.

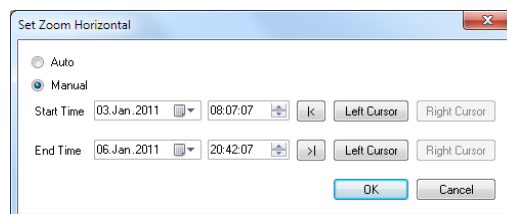


Zoom - vertical



Horizontal axis

Assignment of the displayed time range. The time range can be determined automatically, by entering the start and end time or with the position of both cursors.



Zoom - horizontal

A zoom in the view "*All data" or in a saved view always creates a "*New view".

5.3.1.3

Skip



Skip backward

Moves the line in the chart "**New view" and in all saved views to the left by one time range. The result is always displayed in the "**New view".



Skip forward

Moves the line in the "**New view" chart and in all saved views to the right by one time range. The result is always displayed in the "**New view".

5.3.2

Views

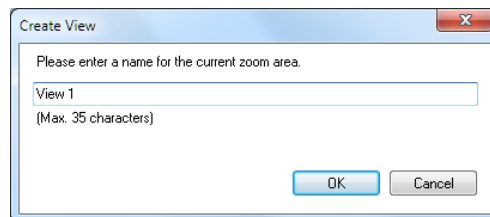


Menu bar



Create a view

A name is given to "**All data" or "**New view". You can create any number of views of "All data". The "**All data" view always remains unchanged. All performed operations are shown in this view until a name is assigned.



Zoom - name



Delete view



It is not possible to delete these two views

- *All data
- *New view

Display of the measured values

For the recording time to be shown in the chart and the grid of the time axis

⇒ 5.2.4 Grid and 5.2.5 Transit - Arrived

5.3.2.1

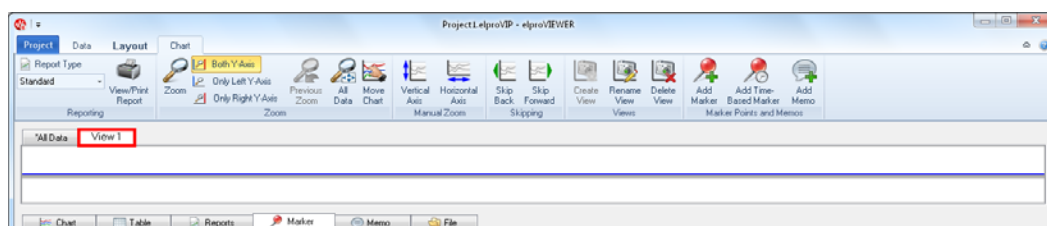
Rename views



- Views that already have a name can be renamed with this function.
- Renaming of the view if possible by clicking the tab with the right mouse button (red).

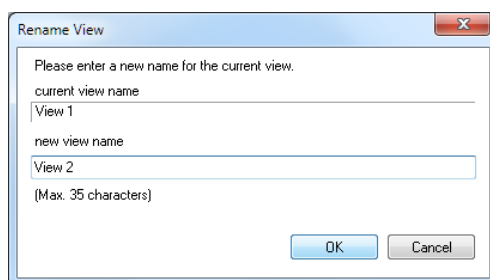
Actions

- Specify view



Action executed

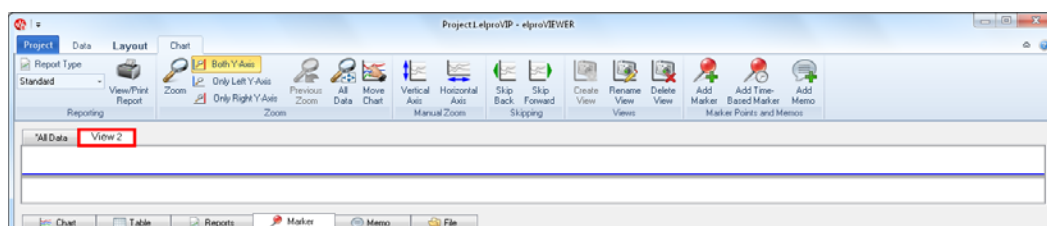
- Enter new name



Application Name

Result

View 1 renamed to View 2



Action executed

5.3.3

Marker points



Menu bar

Positions

Characteristic measured values can be marked in the chart. Marker points can be set at the following positions:

- Manual positioning
- Setting by time and date

Representation of marker points

- Marker points are shown in all views if they are inside the display area of the view. When a view is deleted, the marker points remain visible in the other views.
- The marker points are indexed in alphabetical order. Always the first, free letter is used.
- A set marker point cannot be moved in the chart. It can only be deleted.



UP TO 26 MARKER POINTS CAN BE SET!



Add marker point

Setting a marker point

⇒ 4.1.2.2 Workflow / Step 4

5.3.3.1

Add time-based marker points



Marking events by specifying a point in time.

Actions

- Determine the respective point

Point determined

Result

*) Value at the position of the marker

- Marker point set

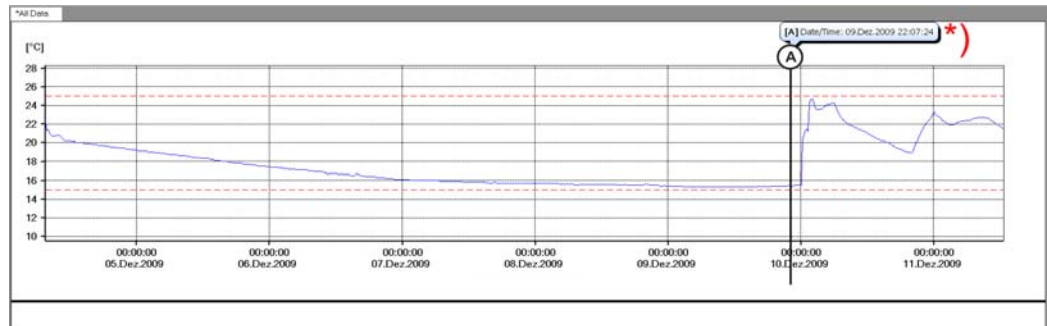


Chart with marker point A

The index is automatically positioned in the chart and is always "A" for the first marker point. The measured value information is displayed as soon as the mouse pointer is moved over the marker point.

Marker points are also shown in the "Configuration" section of the elproVIEWER user interface and in the elproVIEWER-report.

⇒ 3 Use of the elproVIEWER



Time-based marker points cannot bear a description.

5.3.3.2

Delete marker point



Clicking this icon deletes the marker point.

Chart




Table

Reports

Marker

Memo

File

Delete	Label	File Index	Sensor ID	File Name	Date / Time	Value	Comment
	A	0001	1	M:\Entwicklung\Dokumentation\Anleit	03.May.2010 04:01:46	18.2 °C	
	B	0003	1	M:\Entwicklung\Dokumentation\Anleit	20.Feb.2010 00:16:05	17.2 °C	
	C	0002	1	M:\Entwicklung\Dokumentation\Anleit	22.Oct.2009 07:27:07	18.6 °C	

List of marker points / Configuration section

⇒ 6.1 General contents

5.3.4

Memos



Menu bar

5.3.4.1

Add memo

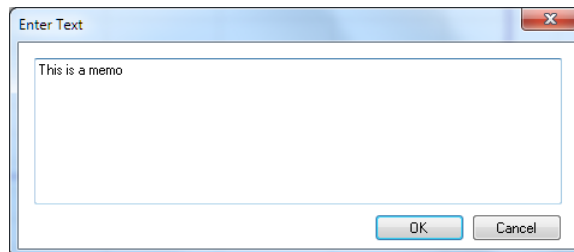


Permits addition of extra information.

⇒ 5.3.4.1 Add memo

Memos saved with "OK" can no longer be changed. If the entry is faulty, the memo must be deleted.

Actions



Text window for entering the memos

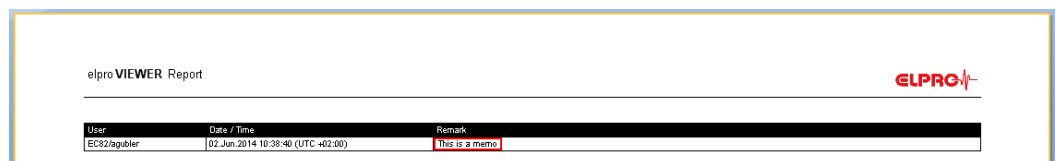


- Memos can be up to 350 characters long.
- Memos can only be added in the view "**All data" or added to saved views.

Results

Memos are shown in the "Configuration" section of the elproVIEWER user interface and in the elproVIEWER-report.

⇒ 3 Use of the elproVIEWER



Memo in the elproVIEWER report

5.3.4.2

Delete memo



Clicking the icon deletes this memo.

Chart




Table

Reports

Marker

Memo

File

Delete	Label	File Index	Sensor ID	File Name	Date / Time	Value	Comment
	A	0001	1	M:\Entwicklung\Dokumentation\Anleit	03.May.2010 04:01:46	18.2 °C	
	B	0003	1	M:\Entwicklung\Dokumentation\Anleit	20.Feb.2010 00:16:05	17.2 °C	
	C	0002	1	M:\Entwicklung\Dokumentation\Anleit	22.Oct.2009 07:27:07	18.6 °C	

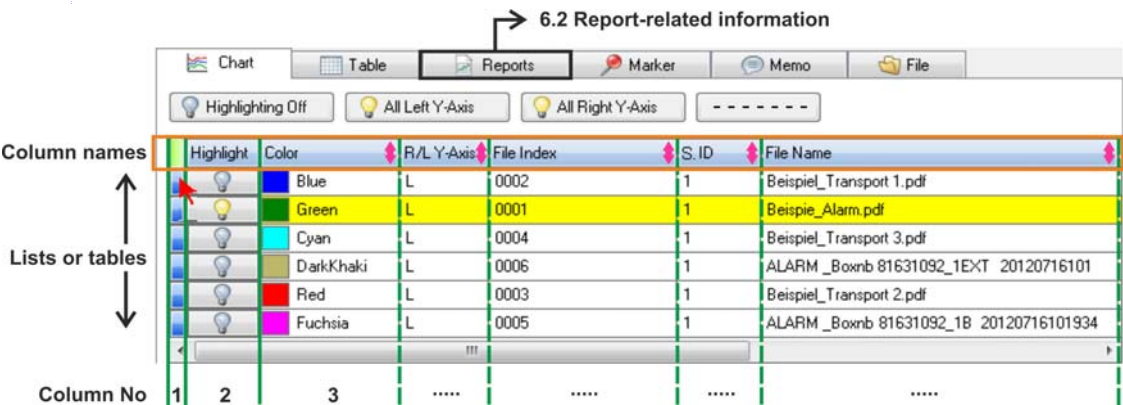
List of memos / Configuration section

⇒ 6.1 General contents

6 Configuration of an elproVIEWER report

The content of an elproVIEWER report comprises general contents and information that depends on the report type.

6.1 General contents



User interface of elproVIEWER / section: Configuration

6 Shift

The individual columns may be arranged as desired by clicking the column name and dragging to the desired position.

Sorting



Information can be listed in ascending or descending order. This function is activated by clicking the column name. Only one column can be selected as a sort criterion.



The yellow line is highlighted. This line corresponds to the green line curve in the graphic: 3 Use of the elproVIEWER

⇒ 6.3 Chart - highlight



This is only visible in the elproVIEWER Professional Edition in the Join mode.

⇒ 7.3 Join

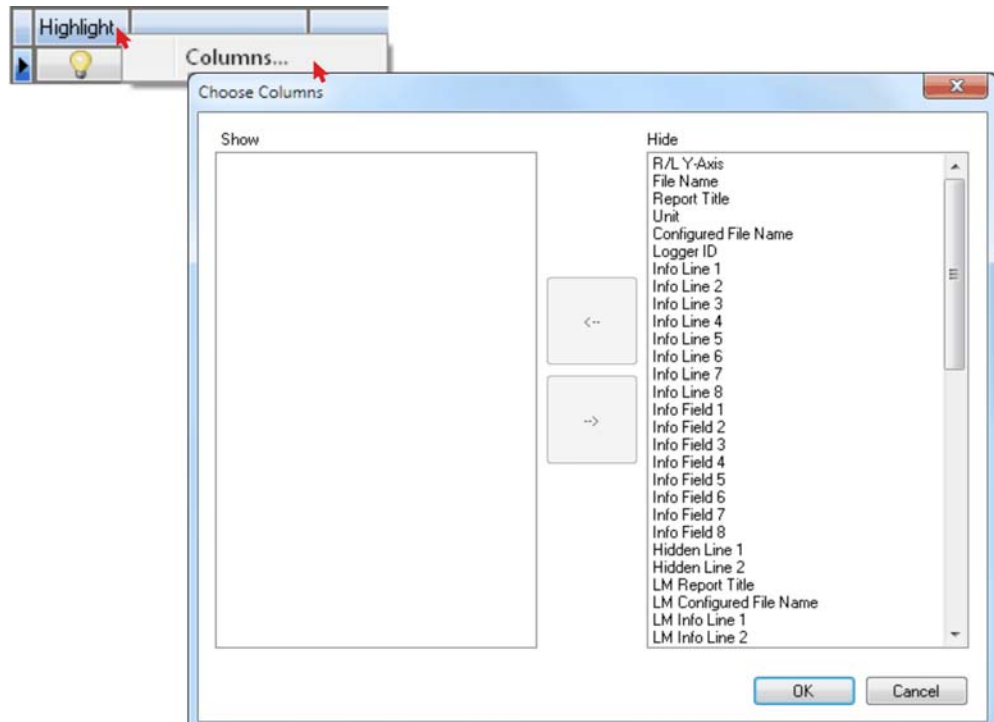
6.1.1

Columns

Column - select



By clicking the right mouse button on any "Column name" the window to select the columns needed for assessment pops up.



Example column: Highlight

Column Names

Column names may be assigned with column alias names freely to ease the evaluation.

In the elproVIEWER report it is possible to use the additional information from the original LIBERO PDF report. Columns that are placed below the graphic are printed. All columns that are placed below the graphic are printed.

⇒ 2.1.4 Column Names

6.1.1.1

Example: Configuration report

LIBERO Configuration Report

Profile					
Profile Checksum:	3.336.584.032		Configuration Password:	No	
Profile-ID:	2-8		Data Access Password:	No	
Device					
Type:	LIBERO CB (V 4.13)		Expiry Date:	07/2014	
Logger ID:	7201 0006 586		Start Delay:	60 m	
Log Interval / Duration:	20 min / 122d 5h 20m				
Configured by:	C1361, EC82/agubler 10.07.2013 08:01:38 (UTC)				
Description					
Report Title:	Transportmonitoring Z25				
Info Field 1-4:	China030 8608 2645				
Info Field 5-8:					
Info Line 3:	Send this PDF report to: LAD				
Info Line 4:					
Info Line 5:					
Info Line 6:					
Info Line 7:					
Info Line 8:					
Hidden Line 1:					
Hidden Line 2:					
Filename:	Transport LAD China				
Alarm Conditions					
Temperature:	Allowed Time:	Event Mode:		Allowed Excursions	
H1: over 8,0 °C	0 m	Single		unlimited	
G: 2,0 °C to 8,0 °C	unlimited				
L1: below 2,0 °C	0 m	Single		unlimited	
MKT and Duration Alarm					
MKT Alarm Enabled:	No	MKT Activation Energy:		83 kJ/mol	
Duration Alarm Enabled:	No				
Format Settings					
Time Zone:	UTC +00:00		Daylight Saving Time:	No	
Date Format:	DD.MMM.YYYY		Time Format:	24h	
Temperature Unit:	°C		Decimal Separator:	. (Point)	
PDF Options					
Y-Axis Scaling of Chart:	Automatically Zoom				
Hide Alarm Conditions:	No	Hide Alarm Status:	No	Hide Logging Results:	No
Hide Chart:	No	Hide Alarm Indicator:	No		
Handling Options					
Minimum Logging Duration:	60 m	Stop Button Disabled:	No	Display Hide Meas.:	No
Display Hide Indicator:	No	Profile-ID on Display:	by button		

Description

Info Field 1

Info Field 2

Info Line 3

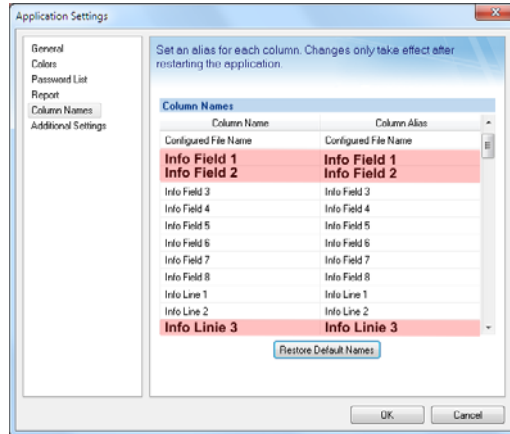
Standard name for column alias

Destination

Transport no.

Recipient

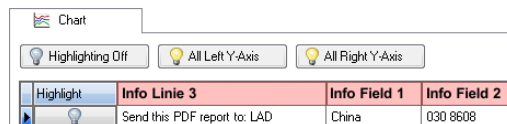
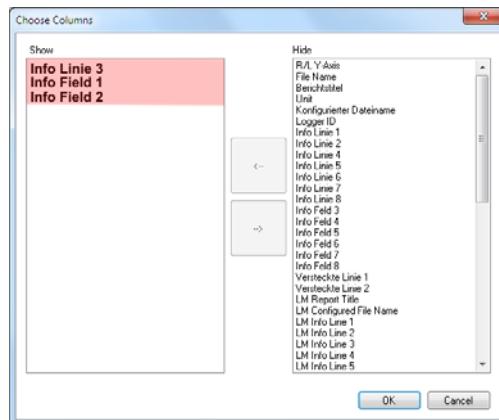
Standard name



Restore Default Names

Original names or names after "Reset Default Names".

Column selection - standard name



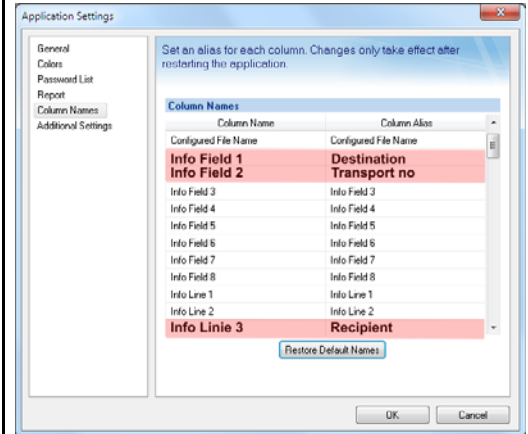
Column Names

Column alias

Assignment is carried out in the options

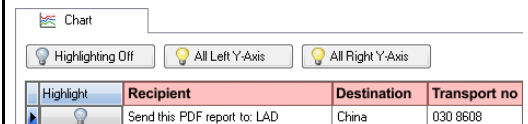
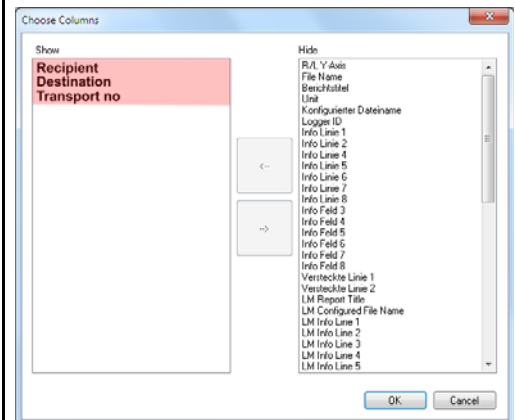
⇒ 2.1 Options / Column Names

The column alias is only active after a restart of elproVIEWER!



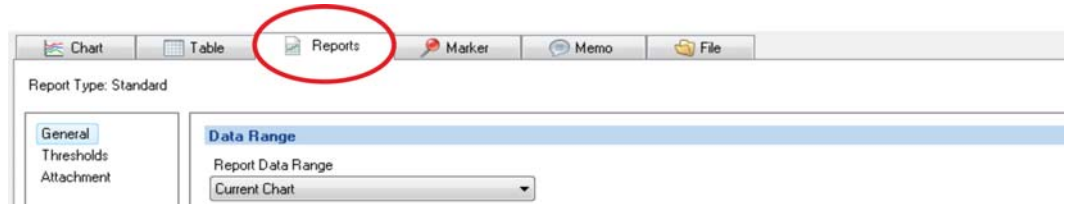
Columns names changed after entering column alias.

Column selection - column alias



Column names replaced by column alias

6.2 Report-related information



Configuration - report

6.2.1 Report type: Standard

Load Template

Save Template

- Uses an existing template for report configuration.
- Saves the configuration of the current report as a template.

When a template is created once, it permits fast creation of a standard report suitable for the respective situation from a series of new LIBERO PDF reports.









6.2.1.1

General

- Data range
The range for the elproVIEWER report corresponds with the current chart
- Chart
 - No view
 - Include current view
 - Include selected view

Permits the selection and sequence of the views documented in the elproVIEWER report.

☒ Include Selected Views

Up	Down	Selected	View Name
		<input checked="" type="checkbox"/>	All Data
		<input type="checkbox"/>	View 2
		<input checked="" type="checkbox"/>	View 1
		<input checked="" type="checkbox"/>	View 3

Action executed

- Text
The elproVIEWER report can be given the following additional information:
 - Statistics
 - Measured value table
 - LIBERO configuration report

Text

Statistic

☒ Show Statistics

Table

☒ Show Table

Libero Configuration

☒ Print Libero Configurations

Action executed

⇒ 6.4 Table and LI6002Ex LIBERO operating instructions

6.2.1.2

Threshold values

These are additional parameters for the statistics in the elproVIEWER report.

- Entry of threshold values
In assessment reports with several PDF reports the threshold values of the first PDF report are used or new values are defined.



Only if "manual " is selected, the threshold values can be redefined.

- Temperature / Relative humidity
"Activate" must be selected to select the alarm modes.



- Alarm mode
Different alarm modes are available

- MKT
An alarm can be calculated and assessed for the MKT with defined parameters.
Assessment must be activated.



⇒ 2.1.5 Calculation

- Duration
The total alarm duration is treated as a threshold value.
"Activate" must be selected for assessment.



Threshold values

Information on the definition of the threshold values in the LIBERO PDF report

⇒ 8.1 Alarm & threshold values

6.2.1.3

Annex

- Annex text
Additional information that is manually entered during the report generation.
"Show annex page" must be selected.



6.2.2

Report type: Assessment

Load Template

Save Template

- Uses an existing template for report configuration.
- Saves the configuration of the current report as a template.
When a template is created once, it permits fast creation of a standard report suitable for the respective situation from a series of new LIBERO PDF reports.

6.2.2.1

General

- Data range
Determines the section of the chart that is used for the new assessment.
- Text
Name in the header of the assessment report (up to 120 characters).
- Decision
Input fields containing reasons for the new report assessment (4 lines of 80 characters).
The reason is printed on the assessment report if the "Show Assessment Decision" option is checked.
- Release
Print two signature fields for approval of the assessment report.

General
Thresholds

Data Range

Report Data Range
Current Chart

▼

Text

Assessment Name
Decision
☐ Show Assessment Decision
4 lines by 80 characters

Approval
☒ Show Approval

Assessment report - general

6.2.2.2

Threshold values

These parameters are used to modify the critical threshold values for the assessment report.

- Entry of threshold values
In assessment reports with several PDF reports the threshold values of the first PDF report are used or new values are defined.
☒ Only if "manual " is selected, the threshold values can be redefined.
- Temperature / Relative humidity
☒ "Activate" must be selected to select the alarm modes.
 - Alarm mode
Different alarm modes are available
- MKT
☒ An alarm can be calculated and assessed for the MKT with specified parameters. Assessment must be activated.
⇒ 2.1.5 Calculation
- Duration
☒ The total alarm duration is treated as a threshold value. "Activate" must be selected for assessment.

Threshold values

Information on the definition of the threshold values in the LIBERO PDF report

8.1 Alarm & threshold values

6

6.3

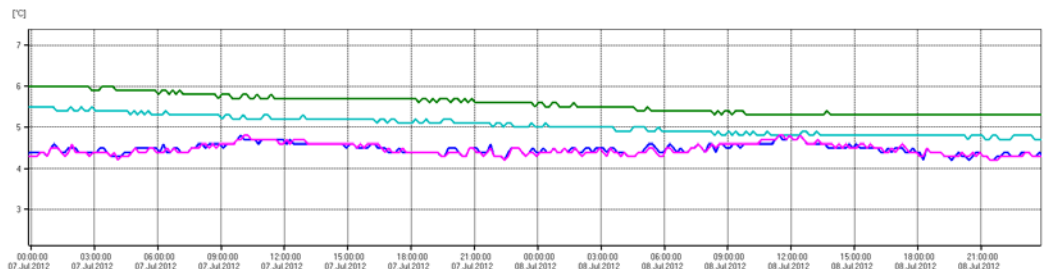
Chart - highlight

Standard representation: All lines are set to "highlight"

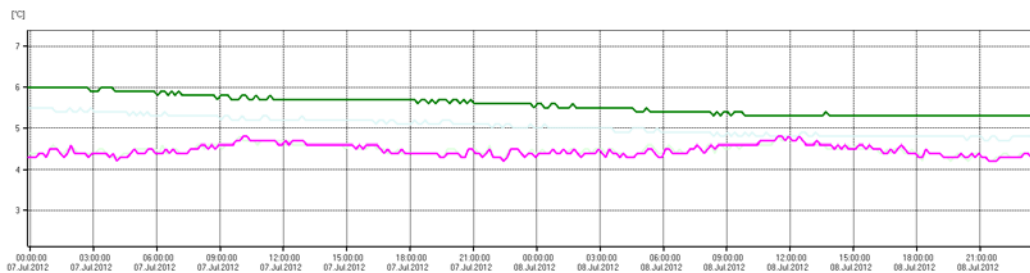
With the "All left Y axes" function and "All right Y axes" the lines that are not assigned to the axis are shown in a (lighter) pastel color. The function does not weaken the observed lines. In the following example only curves 1 and 4 are highlighted. The representation of a curve is changed by clicking the respective light bulb.



NO FUNCTION, IF ONLY ONE CURVE IS SHOWN.



1. Default setting



2. Curve highlighted in "green" and "lilac"

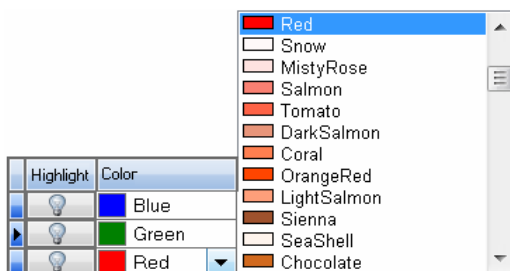
By clicking the green area all curves are selected for the change.



6.3.1

Color

Each measured value line in the chart can be assigned an individual color.



6.4

Table

Column Names

The file index ID and measured value information is displayed as follows: IDxxxx[unit]

Table range

A table can contain the following data range:

- All data of the chart
- The data between the two cursors
- Current view

Alarm thresholds

The background color of the alarm thresholds are shown in the table in accordance with the definition in the options.

⇒ 2.1 Options / General / General / Display zone colors in the table view

⇒ 5 Menus

6.5

File

- Remove: Only the selected file can be deleted. A multiple selection is not possible.
- PDF reports with 2 different variables result in 2 lines but with the same file index
- If an attempt is made to open a damaged file, an error message appears. The file index is, however, not assigned again. It is therefore possible to ensure that the file index sequence is not monotonous.

6.5.1

Delete file



Clicking this icon deletes the selected file.

Remove	Selected PDF	Selected Sensor	Sensor ID	Unit	File Index	File Name
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	°C	0001	Beispiel_Alarm.pdf
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	°C	0002	Beispiel_Transport 1.pdf
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	°C	0003	Beispiel_Transport 2.pdf
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	°C	0004	Beispiel_Transport 3.pdf
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	°C	0005	ALARM_Boxnb 81631092_1B 20120716101934 22040

List of files

6.6

Print / Export

6

6.6.1

Data

WINDOWS clipboard

In the views

- Chart
- Table
- Marker points
- Memo
- File



The lines highlighted in the table can be copied to the clipboard by right-clicking the mouse.

Date / Time	ID 0002 [°C]	ID 0003 [°C]	ID 0004 [°C]	ID 0005 [°C]
05.Jul.2012 12:02:05	6.0 °C TR			
05.Jul.2012 12:12:05	6.0 °C TR	7.7 °C TR	6.1 °C TR	7.2 °C TR
05.Jul.2012 12:22:05	6.0	Copy selected rows to clipboard		
05.Jul.2012 12:32:05	6.0 °C TR	6.6 °C TR	6.1 °C TR	6.4 °C TR
05.Jul.2012 12:42:05	6.0 °C TR	6.4 °C TR	6.1 °C TR	6.4 °C TR

Example for view "Table"

i Yellow ID: Line is highlighted.
6.3 Chart - highlight

Highlight



- Mouse click -> Line
- Ctrl + mouse click -> several lines
- Mouse click on the green area -> all lines
(Color only for documentation)

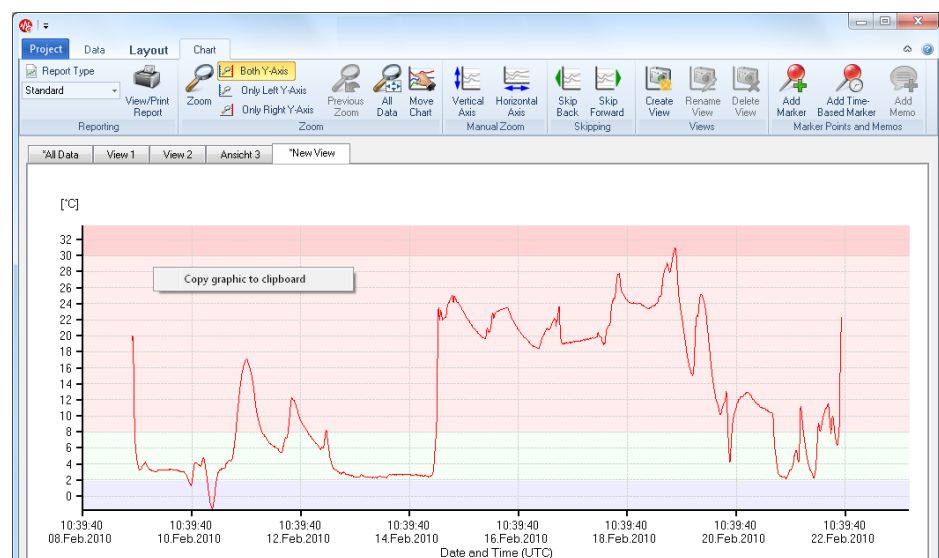
6.6.2

Graphic

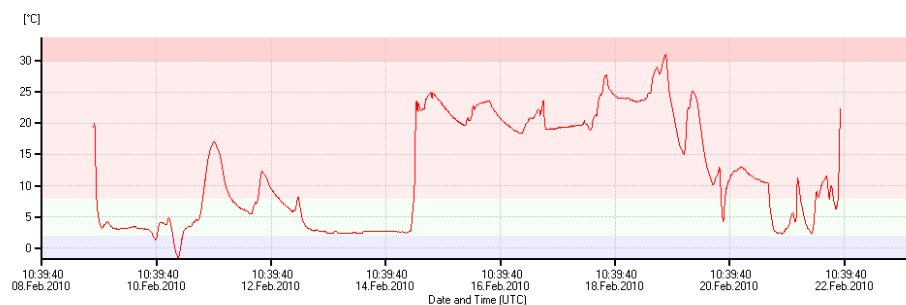
WINDOWS clipboard

The "Copy" selection is shown by right-clicking on the selection.

By left-clicking on "Copy" the graphic is shown with the same formatting as it is shown in "Report", copied to the clipboard and can therefore be used for a report outside the elproVIEWER.



Graphic exported



Graphic inserted

7 Data analysis

elproVIEWER has a number of functions for analysis of the recorded measured values.

7.1 Statistics

- Range
The measured values which were used for the above calculations are shown in a "from ... to" range. This range always corresponds to the time range shown in the chart.
- Mean Value, Mean Variance and Std. Deviation
Correspond to the calculations in accordance with the Gauss distribution curve.
- Lowest/highest value
The minimum/maximum value measured in the corresponding time range is determined.
- Min-/Max thresholds
These are the threshold values used for statistical evaluation.
- Time: Value > Max.
Time: Value < Min.
Time: Outside Min./Max.
Time: Inside Min./Max.

The time during which threshold values are violated is calculated as the sum of the individual times. Only the total time is calculated. The total time must not necessarily be made up of consecutive time periods.

⇒ 6.2.1.1 *General*

- MKT

⇒ 2.1.5.1 *MKT activation energy*

6.2.1.2 *Threshold values*

7.3 *Join*

With the "Join" function the MKT can be calculated over several LIBERO PDF reports.

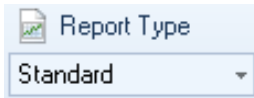
MKT

Mean Kinetic Temperature

For further information about MKT calculation, see the document: IT2010E MKT.

7.2

Overlay



Display of the time axis: Comparison time.

This function uses a relative time axis on which the individual lines are positioned in relation to a reference line. The time interval that corresponds to the lowest common multiple of all measurement intervals is used as an interval for the time axis. Missing measured values are interpolated linearly.

Temperature and temperature-humidity curves can be overlaid together.



Overlaying is only possible in the "Standard" mode

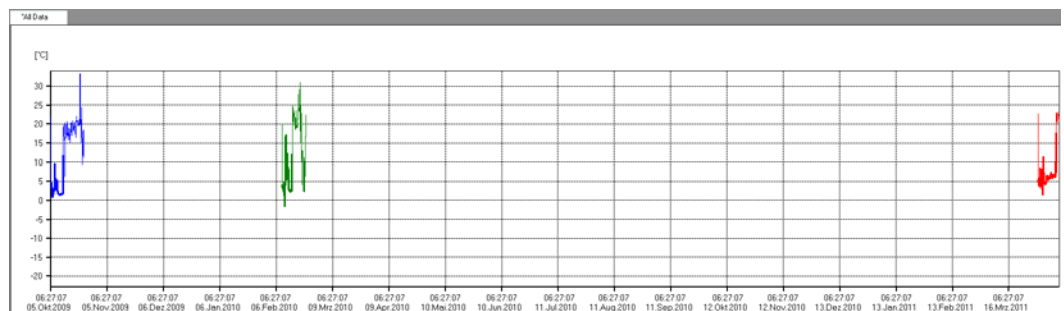
⇒ Measurement value information: 3 Use of the elproVIEWER / User interface of elproVIEWER / Information area

1.) Mode: Real time



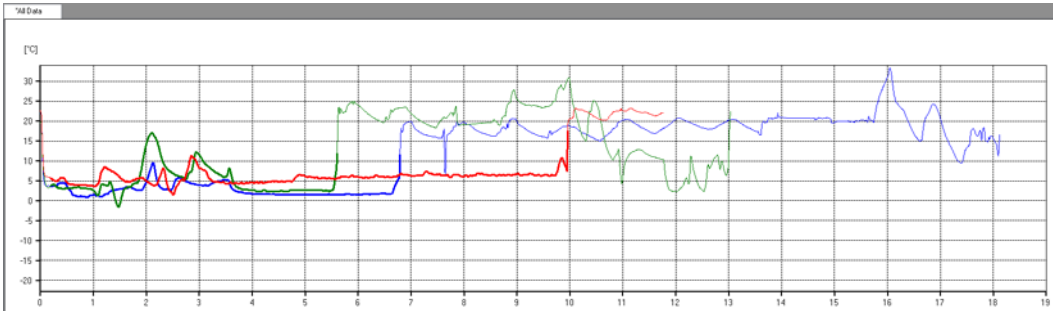
7

Add files to the project that can be combined to one report by an "overlay".



Before overlaying

2.) Mode: Overlay



Action executed

3.) Reference curve

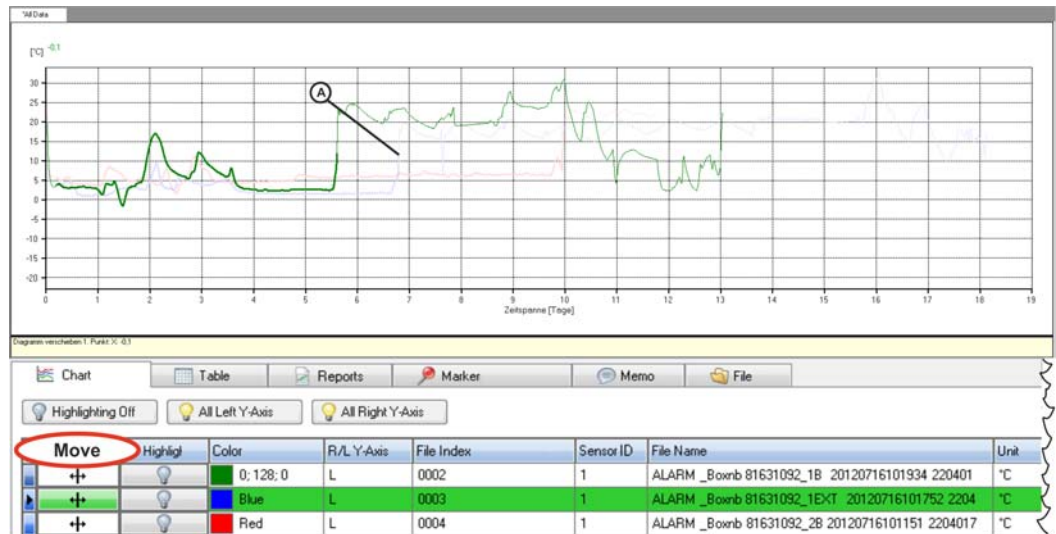
Highlight the reference curve and mark the reference point with a marker



Action executed

4.) Determine the curve

Activate the curve to be moved by clicking in the "Move" field (green line)

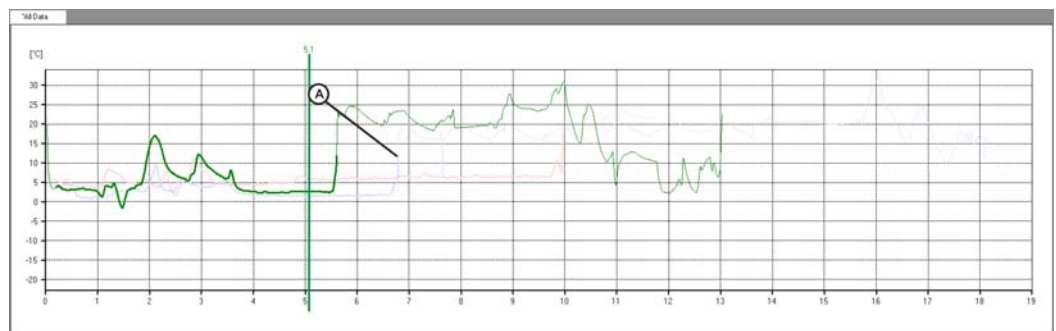


Action executed

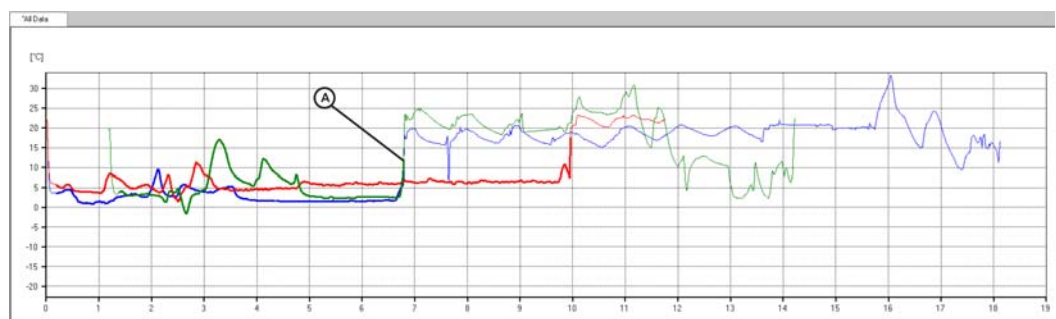
5.) Move to the reference point

In "Move" mode, a vertical line similar to a cursor appears at the position of the mouse pointer. The line moves in a horizontal direction synchronously with the mouse pointer, as long as it is inside the chart area and the left mouse button is pressed.

7



Reference point determined



Action executed - curve moved to the reference point

6.) Completion

The next steps are: Display, print and archive the report.

7.3

Join

This function combines line curves from several LIBERO PDF reports to a single line curve. This new curve extends over the time range of all individual curves. The time interval that corresponds to the lowest common multiple of all measurement intervals is used as an interval for the time axis.

All LIBERO PDF reports must meet these conditions:

- Same measuring interval
- Same activation energy
- Same time zone, summer-winter time
- Maximum of 16 PDF reports

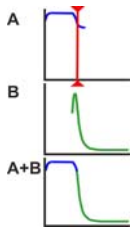
Temperature and temperature-humidity line curves can be joined together.



Joining curves with the Standard report type as well as assessment.

⇒ Measurement value information: 3 Use of the elproVIEWER / User interface of elproVIEWER / Information area

Data overlapping



The curve sequence is the same as their starting time. If the data of 2 curves overlap, the data from the cursor position of the earlier log (curve A) are replaced by the later log (curve B) and used for joining.

Missing measurement values

Unknown



A constant value can be entered and explained for time ranges in which none of the measurement values logged by LIBERO are available.

Example: 5.3°C / DL-ID86359 based on the measurement data of an external system.

There is otherwise the option of making a setting that only the existing LIBERO data are included in the calculation options.

Left-click on: Unknown opens the window to enter the values.

Enter missing measurement values

If the gap is closed the statistics and the MKT can be calculated over the entire time range.

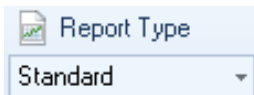


Gaps of only 1 measurement value are automatically closed.

⇒ 2.1.5.2 Statistics

7.3.1

Report type: Standard



- Display of the time axis: Real time
- Result: Joint report

7.3.1.1

Application: Calculation of the MKT over a calendar year

In this example 3 temperature curves are joined for one assessment. The first and second curve overlap at the end of the first curve. Between the second and third curve there is a gap which is closed by the manual entry of a measurement value from an external monitoring system.

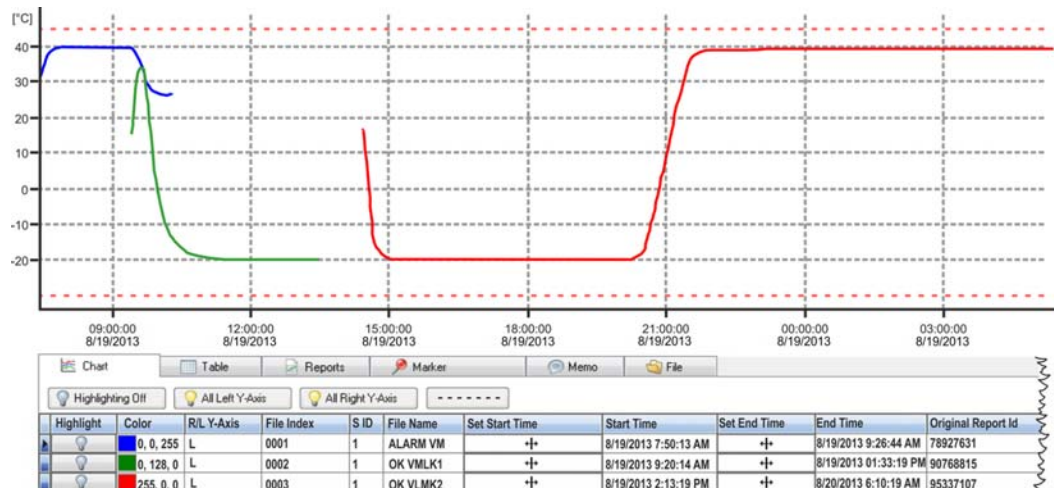
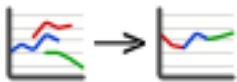
1.) Add data

7



Add the PDF reports to the project that are joined to one PDF report with "Join",

2.) Change mode



Example with 3 PDF reports



This button is used to switch between Real Time mode (Edit mode) and Join mode.



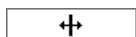
Edit mode

Initial status in which the curve ranges (time axis) of the individual curves are determined. The curves are joined by clicking this button.



Switches back from mode: Join to Edit mode.

3.) Start and end time



For each curve the start and end time are defined by clicking in the respective field with the cursor.

Blue curve

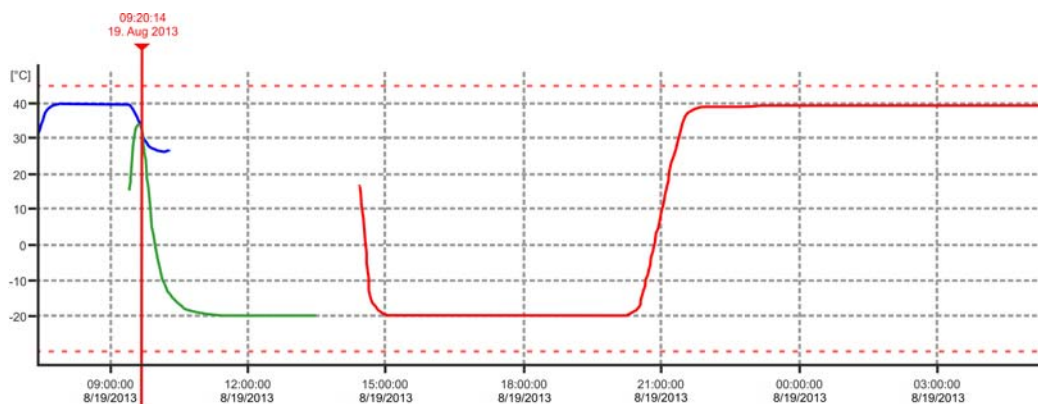
Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Original Report Id
	0, 0, 255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM	78927631
	0, 128, 0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 01:33:19 PM	90768815
	255, 0, 0	L	0003	1	OK VLMK2	+	8/19/2013 2:13:19 PM	+	8/20/2013 6:10:19 AM	95337107

Start time of the blue curve: 19.Aug.2013 07:50:13

Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Original Report Id
	0, 0, 255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM	78927631
	0, 128, 0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 01:33:19 PM	90768815
	255, 0, 0	L	0003	1	OK VLMK2	+	8/19/2013 2:13:19 PM	+	8/20/2013 6:10:19 AM	95337107

End time of the blue curve: 19.Aug.2013 9:26:44 AM

Green curve



Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Original Report Id
	0, 0, 255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM	78927631
	0, 128, 0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 01:33:19 PM	90768815
	255, 0, 0	L	0003	1	OK VLMK2	+	8/19/2013 2:13:19 PM	+	8/20/2013 6:10:19 AM	95337107

Start time of the green curve: 9.Aug.2013 9:20:14 AM

After joining, the curve of the blue curve is replaced by that of the green curve from the start time of the green curve.

⇒ 7.3 Join - Data overlapping

Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Original Report Id
	0, 0, 255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM	78927631
	0, 128, 0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 01:33:19 PM	90768815
	255, 0, 0	L	0003	1	OK VLMK2	+	8/19/2013 2:13:19 PM	+	8/20/2013 6:10:19 AM	95337107

End time of the green curve: 19.Aug.2013 1:33:19 PM

Red curve

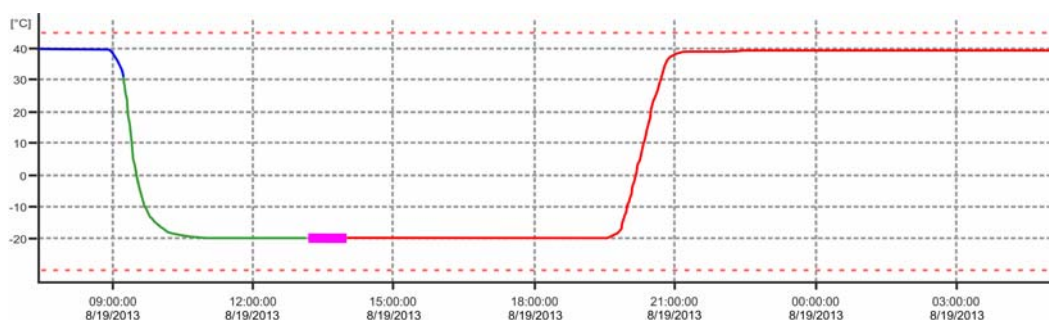
Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Original Report Id
	0, 0, 255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM	78927631
	0, 128, 0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 01:33:19 PM	90768815
	255, 0, 0	L	0003	1	OK VLMK2	+	8/19/2013 02:13:19 PM	+	8/20/2013 6:10:19 AM	95337107

Start time of the red curve: 19.Aug.2013 2:13:19 PM

Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Original Report Id
	0, 0, 255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM	78927631
	0, 128, 0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 01:33:19 PM	90768815
	255, 0, 0	L	0003	1	OK VLMK2	+	8/19/2013 02:13:19 PM	+	8/20/2013 6:10:19 AM	95337107

End time of the red curve: 20.Aug.2013 6:10:19 AM

4.) Mode: Join



Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Value	Statement
	0, 0, 255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM		
	0, 128, 0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 1:33:19 PM		
	255, 0, 255	L	1002	1		+	8/19/2013 1:13:19 PM	+	8/20/2013 2:13:19 PM	Unknown	
	255, 0, 0	L	0003	1	OK VLMK2	+	8/19/2013 2:13:19 PM	+	8/20/2013 6:10:19 AM		

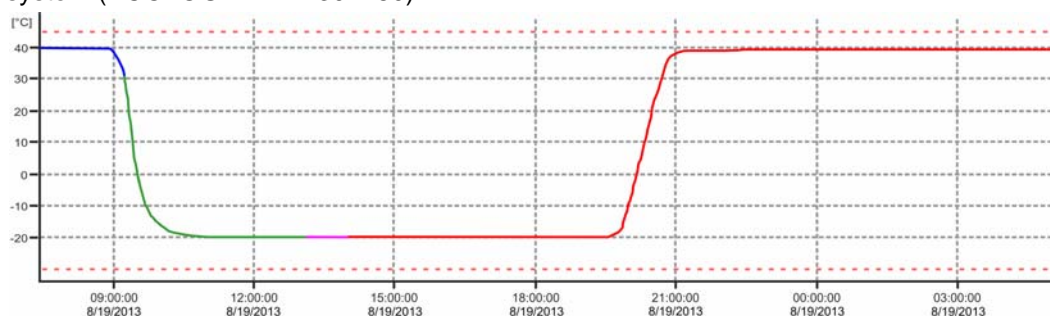
Curve with data gap, joined

In the resulting curve:

- the start point of the blue curve is moved to the previously defined start time (19.Aug.2013 07:28:13).
- The overlap between the blue and green curves is deleted.
- The data gap (pink) is made visible by an interruption in the curve.

5.) Fill existing data gap

The area of the data gap (pink) is entered manually. The data are supplied by an external system (ECOLOG-NET ID301180)



Highlight	Color	R/L Y-Axis	File Index	S ID	File Name	Set Start Time	Start Time	Set End Time	End Time	Value	Statement
	0,0,255	L	0001	1	ALARM VM	+	8/19/2013 7:50:13 AM	+	8/19/2013 9:26:44 AM		
	0,128,0	L	0002	1	OK VMLK1	+	8/19/2013 9:20:14 AM	+	8/19/2013 1:33:19 PM		
	255,0,255	L	1002	1		+	8/19/2013 1:13:19 PM	+	8/20/2013 2:13:19 PM	-20,0	ID301180
	255,0,0	L	0003	1	OK VLMK2	+	8/19/2013 2:13:19 PM	+	8/20/2013 6:10:19 AM		

Curve with data gap, filled

⇒ 7.3 Join - Missing measurement values

6.) Alarm conditions

Define alarm conditions for the joint report

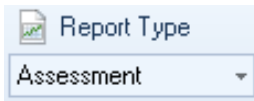
7.) Configure the report

8.) Completion

The next steps are: Print and archive the report.

7.3.2

Report type: Assessment



- Display of the time axis: Real time
- Result: Joint assessment report

7.3.2.1

Application: Transport - (Warehouse) - Transport

In the following example an assessment is created which includes two transports and the storage time between transports.

The following steps are necessary:

1. Import the respective PDF reports
2. Select "Join" mode
3. Define the period of time of the data to be used (select start and end time per curve)
4. Select "Join now". For curve sections without measurement values (Unknown) the lines that are newly inserted into the table must be defined.
⇒ 7.3 Join - Missing measurement values
5. Define extended / other alarm conditions
6. Select "Assessment" report type
7. Document the report:
 - Enter the assessment name (120 characters)
 - Comment the decision (4x80 characters)
 - If necessary insert signature block
8. Display the report and select the liberoMANAGER symbol, print if required
9. The *.VAP file is created, save it in the joint folder of the elproVIEWER and liberoMANAGER.



**.elproVAP*

elproVIEWER Assessment Package

The *.elprovap file contains the newly assessed PDF report and a csv file. In the *.csv it is defined to which original PDF report the newly assessed report should be appended.

The joint assessment report is appended to the last PDF report.

The assessment report and the corresponding *.csv file have the same file name and only the file type is different. The file name corresponds to the assessment report ID.

*The *.csv file contains:*

- Assessment report ID
- Original Logger ID
- Original PDF report number
- Comment (title of the elproVIEWER assessment report)

7.3.3

Condition for calculation: Statistics and MKT

Alarm zones

After joining only one alarm zone is used for calculation. The used alarm zone corresponds by default with the PDF report with the elproVIEWER file index 1. However, it is also possible to define other alarm zones manually or select the alarm zones of another PDF report in the project.

Statistic data

If a report contains several views, the statistics data are only given on the first page.

MKT

If different MKTs are used in the individual PDF reports that have been joined, the MKT is only calculated for the value defined in the options. If this option is not used, the MKT is not calculated.

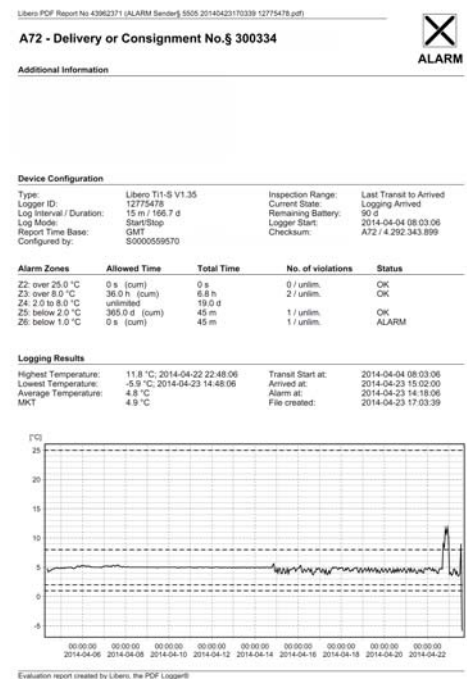
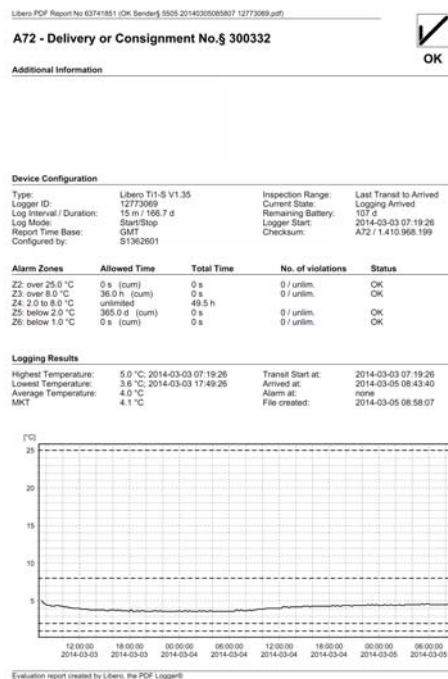
⇒ 2.1.5.1 MKT activation energy

7.3.4

Examples

The basis for the two example reports (joint report and joint assessment report) is a transport operation comprising two transport phases and a storage period. The temperature progression during the storage period is taken as an average value from an external monitoring system.

Transport phases



PDF report of transport phase 1 and 2

Alarm

Permitted time = 0

The reason for the alarm in transport phase 2 is an understepped threshold at the end of logging. In accordance with the configuration, the temperature must not drop below the threshold value of alarm zone L2 (temperature < -1.0°C) even for a short period of time.

Joint assessment report

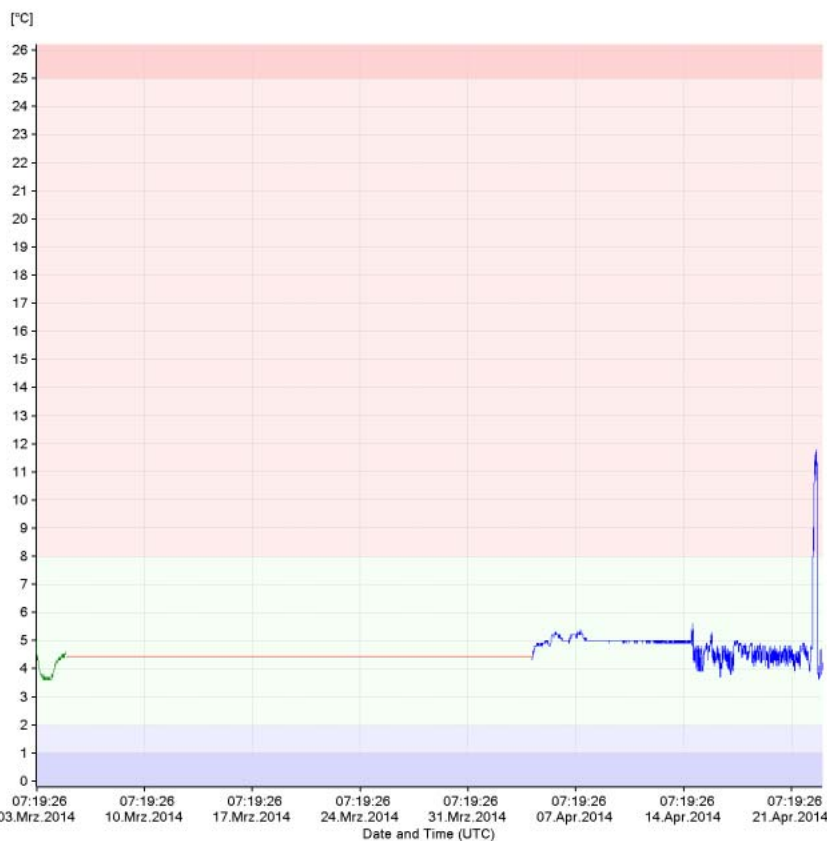
When the maximum dwelling time for violation of the threshold values L2 for the documented situation is specified at 60 minutes and the threshold values in the elproVIEWER were manually modified, it was possible to release the freight with the new joint assessment report.

elproVIEWER Joint Assessment Report



OK

Sources				Selected periods		
Color:	Device ID:	Report No.:	Entry ID:	Sensor ID:	Start Time:	End Time:
■	12773069	63741851	n/a	1	03.Mar.2014 08:49:26	05.Mar.2014 06:34:26
■	n/a	n/a	1002	1	05.Mar.2014 06:34:26	04.Apr.2014 08:48:06
■	12775478	43962371	n/a	1	04.Apr.2014 08:48:06	23.Apr.2014 10:33:06
Alarm Zones		Allowed Time	Total Time	No. of Excursions	Longest Exc.	Status
H2: over 25.0 °C		0 m (cum)	0 m	0 / unlim.	0 m	OK
H1: over 8.0 °C		1 d 12 h 0 m (cum)	6 h 15 m	1 / unlim.	6 h 15 m	OK
G: 2.0 to 8.0 °C		unlimited	50 d 19 h 58 m			
L1: below 2.0 °C		365 d 0 h 0 m (cum)	0 m	0 / unlim.	0 m	OK
L2: below 1.0 °C		0 m (cum)	0 m	0 / unlim.	0 m	OK
MKT Limits and Maximum Duration				Alarm Conditions		Status
MKT: 4.3 °C				Upper MKT Limit:	4.5 °C	OK
Activation Energy: 83 kJ/mol				Lower MKT Limit:	0.0 °C	OK
Statistics						
Highest Temperature:		11.8 °C; 22.Apr.2014 22:48:06		Average Temperature:		4.3 °C
Lowest Temperature:		3.5 °C; 23.Apr.2014 09:48:06		MKT:		4.3 °C
Range:		03.Mar.2014 08:49:26 .. 23.Apr.2014 10:33:06		Activation Energy:		83 kJ/mol
				Duration:		51 d 1 h 58 m



elproVIEWER Joint Assessment Report



OK

Source file (LIBERO PDF Report)

Original File Name: Sender§ 5505
Report No.: 63741851
Source created: 05.Mar.2014 08:58:07
Report Title: A72 - Delivery or Consignment No. § 30033
Additional Information: IMPORTANT: Send report to: me@liberomanager.com

Device Type: T11-S
Device ID: 12773069
Configured by: S1361

Log Interval / Duration: 15 m / 166 d 16 h 0 m
Report Time Base: UTC

Source (Manual entry)

Entry ID: 1002
Sensor ID: 1
Value: 4,5 °C
Statement: Store A
Entered by: WIN, 25.Jun.2014 12:00:00 (UTC +02:00)

Source file (LIBERO PDF Report)

Original File Name: Sender§ 5505
Report No.: 43962371
Source created: 23.Apr.2014 17:03:39
Report Title: A72 - Delivery or Consignment No. § 30034
Additional Information: IMPORTANT: Send report to: me@liberomanager.com

Device Type: T11-S
Device ID: 12775478
Configured by: S1361

Log Interval / Duration: 15 m / 166 d 16 h 0 m
Report Time Base: UTC

7



Send a report to liberoMANAGER

Joint report

Setting

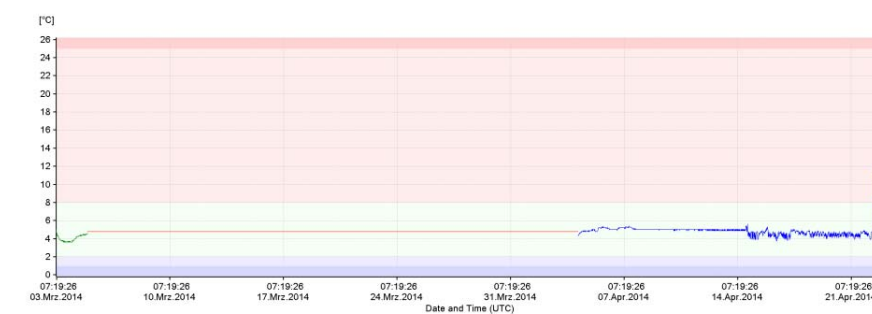
Report type: Standard



elproVIEWER Joint Report



All Data



Alarm	
Range	03.03.2014 07:19:26 ... 23.04.2014 07:33:06
Zone H2 Threshold	25.0 °C
Zone H1 Threshold	9.0 °C
Zone L1 Threshold	2.0 °C
Zone L2 Threshold	1.0 °C

Statistics									
Unit	Average	Variance	Std. Dev.	Low. Val.	High. Val.	T. Value > H1	T. Value < L1	T. Out of L1/H1	T. Within L1/H1
°C	4,8	0,25	0,498	3,6	11,8	6 h 15 m	0 m	6 h 15 m	50 d 18 h 28 m

Additional Information									
File Index	File Name	S. ID	Original Report ID	Unit	Start Time	End Time	Value	Statement	
0002	20145905-085956OK Sender 5505 20140305085807 127730691.pdf	1	63741851	°C	03.03.2014 07:19:26	05.03.2014 05:19:26			
1002				°C	05.03.2014 05:19:26	04.04.2014 11:18:06	4,8	Store A	
0001	20141423-041411ALARM Sender 5505 20140423170339 12775478.pdf	1	43962371	°C	04.04.2014 11:18:06	23.04.2014 07:33:06			

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Joint report page 1

elproVIEWER Joint Report



Used LIBERO PDF Reports

File Index	Original PDF Report File Name	Logger ID	Report No.
0001	20141423-041411ALARM Sender 5505 20140423170339 12775478.pdf	12775478	43962371
0002	20145905-085956OK Sender 5505 20140305085807 12773069[1].pdf	12773069	63741851

Used Manual Entries

Entry ID	S. ID	Value	Statement	Entered by
1002	1	4,5	Store A	WMN-N9L3S\VB5U4\W7 Admin, 24.04.2014 09:43:38



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8 LIBERO PDF report



The information contained in the LIBERO PDF report is specified with liberoCONFIG or LIBERO SmartStart.

Operation Manual of the liberoCONFIG LI6002Ex.

8.1 Alarm & threshold values

Alarm modes

A LIBERO can be run in three alarm modes:



- OFF (alarm deactivated)	No alarm monitoring.
⇒ 8.1.1 <i>Single threshold values</i>	
⇒ 8.1.2 <i>Multiple alarm zones</i>	This function is not available for LIBEROs that record the temperature and air humidity.

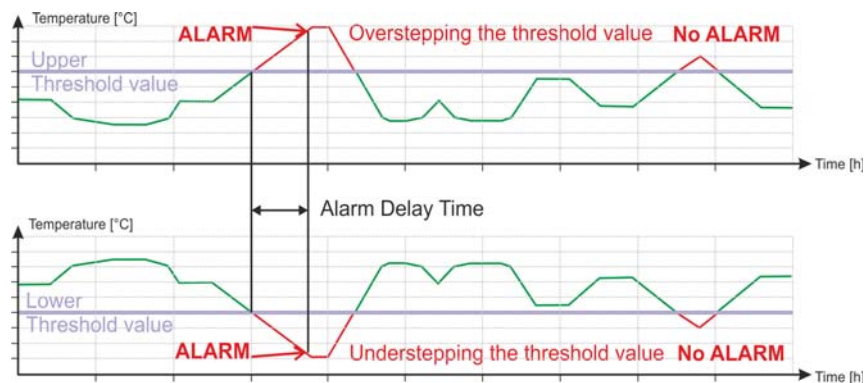


AN ALARM CAN ONLY BE RESET BY RECONFIGURATION!

8.1.1 Single threshold values

Parameter in the window: *Single threshold values*

Upper threshold value / lower threshold value	Data entry fields for the upper and lower threshold values.
Alarm delay time (minutes, hours, days)	An alarm is only triggered if the threshold violation is longer than the specified time.



Temperature progression

8.1.2

Multiple alarm zones

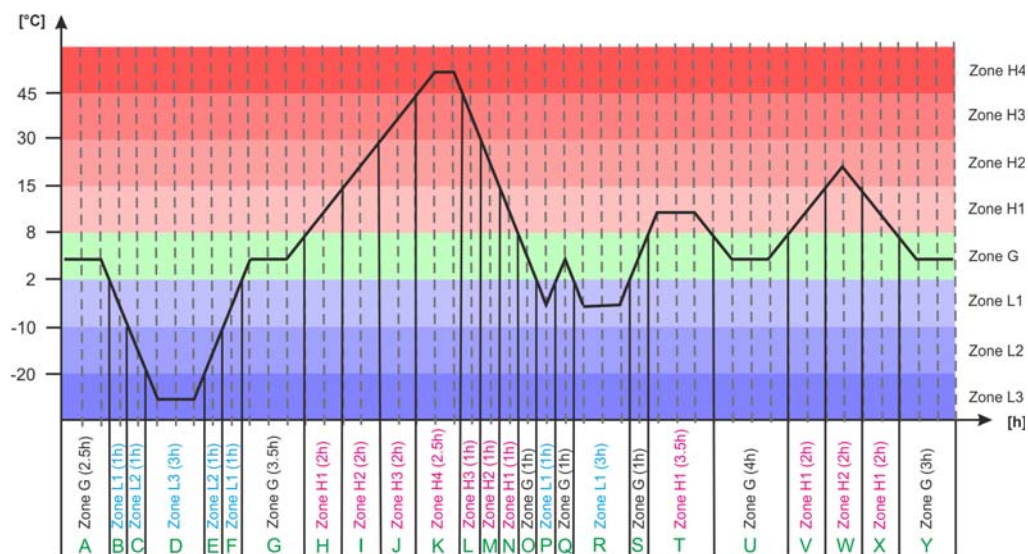
The "Multiple alarm zones" function divides the alarm conditions into up to eight independent zones. Zone G represents the temperature range in which none of the alarm conditions were met (good range).

Parameter in the window: Alarm conditions

Active	These boxes are used to select the required alarm zones.
Temperature	Data entry field for the threshold values.
Alarm after	An alarm is only triggered if the threshold violation is longer than the specified time.
Result	<ul style="list-style-type: none"> • Single The delay time restarts for each threshold violation. • Cumulative An alarm is triggered as soon as the expired time of all added violations has reached the delay time.
Overstepping	Accepted number of violations without taking the set delay time into account for the previous monitoring assignment.
Zones H1 + L1 joined	If this field is checked, an alarm is triggered if the temperature is outside the defined threshold value for zones H1 (overstepping) or L1 (understepping). Only the values of zone H1 are valid as an alarm delay time, the event duration and for the number of the permissible oversteps. The number of overstepping occurrences corresponds to the sum of all registered oversteps and understeps.

Evaluation

Chart display



Temperature progression with zones (Example: LIBERO Cx)

Data

Zone	Temperature range [°C]	Alarm duration Added time [h]	No. of threshold violations	Required plotting section for calculation
H4	More than 45	2.5	1	K
H3	More than 30	5.5	3	J+K+L
H2	More than 15	10.5	6	I+J+K+L+M+W
H1	More than 8	21	11	H+I+J+K+L+M+N+T+V+W+X
G	2 to 8	16	7	A+G+O+Q+S+U+Y
L1	Less than 2	11	7	B+C+D+E+F+P+R
L2	Less than -10	5	3	C+D+E
L3	Less than -20	3	1	D

8.1.3

Extended alarm functions LIBERO Cx

MKT, transport time

LIBERO Cx models can trigger an alarm after:

- specified maximum mean kinetic temperature (MKT).
- Overstepping of the transport time from the beginning of recording to the marked end of transport.

8.1.4

Format settings

Time zone used in the PDF

- Represents the used time zone that is visible on the hard copy and that is integrated into the PDF file. This setting is based on UTC.
- Check box: Daylight saving time (1 hour)
With LIBERO Tx products, this is used to change the selected time zone from standard time to daylight saving time (+1 hour).



DAYLIGHT SAVING TIME: LIBERO TX DO NOT CHANGE TO DAYLIGHT SAVING TIME AUTOMATICALLY!

Date/Time format

Date and time format can be selected.

8

Measured value format

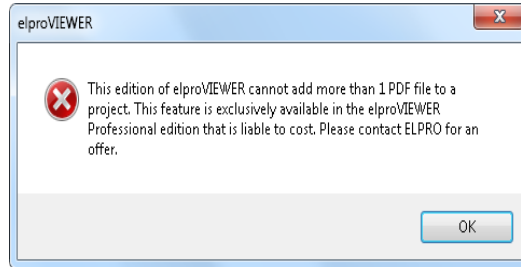
Selection of various display formats possible.

- Temperature unit: °C or °F

Decimal separator: xx.yy (decimal point) or xx,yy (comma)

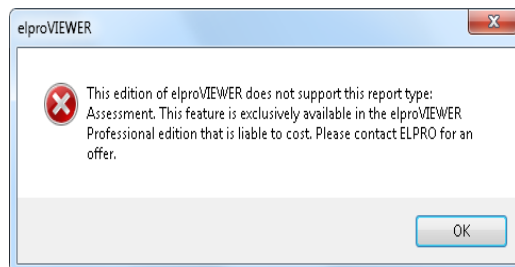
9 Error messages

elproVIEWER Editions



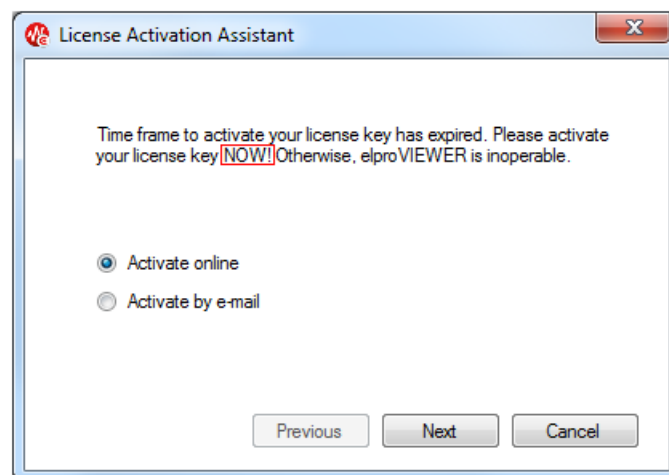
Basic Edition

It is not possible to add a second LIBERO PDF report in this edition. A Professional license is necessary to create elproVIEWER reports with several LIBERO PDF reports.



Basic Edition - assessment

Account Expiry date



License activation

The software can be used for up to 30 days prior to activation.

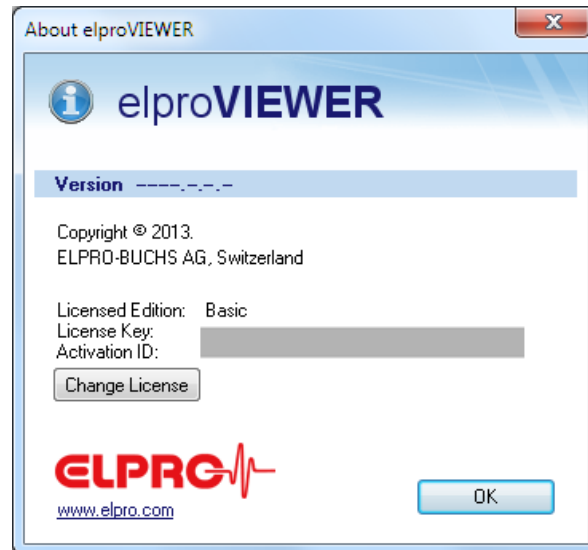
9.1 Customer support

If you need further assistance from the ELPRO Customer support, please provide the following information:



- Software version and licensing information

Information on the current version of the elproVIEWER is contained in the info window.



Version

- Copyright information
- Licensed edition: Basic or Professional
- License key: 20 characters of the license key
- Activation ID: Assignment ID of the license server

If the license key has not yet been activated, the ID is not yet included

General

- Original LIBERO PDF report
- Version and type of the employed operating system

Exact definition of the problem

Which actions were carried out before problems occurred?

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Revision history

Author	Date	Version	Description
A. Gubler	18.07.2013	--	1st Edition
A. Gubler	07/07/2014	a	Adaption to the new software version



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